# SCOPE OF COMPETITION IN TELECOMMUNICATIONS MARKETS

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# LIST OF ACRONYMS

| | |
|---|---|
| BETRS | Basic exchange telephone radio service |
| BOC | Bell Operating Company |
| CAP | Competitive access provider |
| CATV | Community antenna television |
| CCN | Certificate of convenience and necessity |
| CEI | Comparably efficient interconnection |
| CGSA | Cellular Geographic Service Area |
| CI–3 | Computer Inquiry III |
| C.O. | Central office |
| CPE | Customer premises equipment |
| CRT | Cathode ray terminal |
| ESMR | Enhanced specialized mobile radio |
| FCC | Federal Communications Commission |
| GAO | U.S. General Accounting Office |
| ICAC | Interexchange Carrier Access Charge |
| IVDM | Integrated voice–data multiplexer |
| IXC | Interexchange carrier |
| LAN | Local area network |
| LATA | Local access and transport area |
| LEC | Local exchange carrier |
| LEOS | Low earth orbit satellite |
| MFJ | Modification of Final Judgment |
| MFS | Metropolitan Fiber Systems |
| MTS | Message telecommunications service |
| MTSO | Mobile telephone switching office |
| OCC | Other common carrier |
| OCP | Optional calling plan |
| ONA | Open Network Architecture |
| OSP | Operator service provider |
| PBX | Private branch exchange |
| PCS | Personal communications service |
| PIU | Percent interstate usage |
| POP | Point of presence |
| PURA | Public Utility Regulatory Act |
| RSA | Rural service area |
| SMA | Special marketing area |
| SMR | Specialized mobile radio |
| SMSi | Southwestern Bell Messaging Services, Inc. |
| STS | Shared tenant service |
| SWB | Southwestern Bell Telephone Company |
| SWC | Serving wire center |
| TPA | Texas Payphone Association |
| VMS | Voice messaging service |
| WATS | Wide Area Telephone Service |

# EXECUTIVE SUMMARY

The Public Utility Commission of Texas (Commission) regulates the intrastate rates of 61 local exchange carriers (LECs). Each of these carriers has a certificate of convenience and necessity (CCN) from the Commission to provide local exchange service, as defined in the Commission's substantive rules. Moreover, each LEC is the sole provider of most other local services within its service territory. New service providers, encouraged by state and federal regulatory decisions, are entering the local exchange telecommunications market. In this changing environment, regulators must ensure that both competitors and ratepayers are protected from anticompetitive behavior on the part of the LECs.

Another crucial task of the Commission is to safeguard universal service in the face of increasing competition. Universal service refers to the state's goal of making telephone service available to all Texans at reasonable rates. Some LECs fear that in the future competition may threaten universal service as competitors take away their big business customers and leave LECs with residential and rural customers who are, according to the LECs, expensive to serve and generate smaller amounts of revenue per subscriber line.

LECs also provide long distance service within geographic areas called LATAs. IntraLATA long-distance service is provided also by long-distance companies called interexchange carriers (IXCs). LECs have a big advantage in this market because customers dial fewer digits to use their services.

The Commission regulates the rates of one long-distance company, AT&T Communications of the Southwest. AT&T and other IXCs provide service both intraLATA, in competition with LECs, and interLATA (statewide). The Texas long-distance market has about 200 unregulated providers and resellers of long-distance service. These IXCs register with the Commission, but they are free to set their own rates.

Of the 200 or so IXCs providing statewide long-distance service in competition with AT&T, only 21 operate transmission facilities. The great majority of IXCs operating in Texas are themselves customers of AT&T and the 21 other facilities-based carriers. About 92.5 percent of Texas telephone subscribers have equal access to IXCs other than AT&T. To provide equal access, a LEC must place special equipment in its end offices. Most of those subscribers who do not have equal access are located in rural areas.

The Commission monitors the market share of AT&T by gathering information from Texas IXCs. The Commission feels that "telecommunications value added," introduced in this report, is a more reliable measure of market share than measures that have been used in the past.

# I. INTRODUCTION

In 1987, the Legislature adopted amendments to the Public Utility Regulatory Act (PURA) addressing issues of competition in local and long-distance telecommunications markets. These amendments are found in Sections 18 and 100 of PURA. The Legislature directed the Public Utility Commission of Texas (Commission) to report biennially on the scope and impact of competition in telecommunications markets (PURA, Section 18(k) and (p)).

This third biennial report on the scope of competition has six sections, including this introduction. Sections II, III and IV address competition in local, intraLATA long-distance and statewide long-distance markets, respectively. (See Exhibit 1 for a map of Texas LATAs.) Regulated local exchange carriers (LECs) participate in the local and intraLATA markets. In local markets they are facing increasing competition from unregulated nondominant service providers and others. The state's dominant interexchange carrier (IXC), AT&T, and unregulated nondominant IXCs operate in intraLATA and statewide long-distance markets.

Section V of the report addresses the impact of competition on rural areas and on universal service.

In Section VI, Legislative Recommendations, the Commission endorses the regulatory framework provided by PURA, which accommodates and encourages the growth and management of competition in the public interest.

# II. COMPETITION IN LOCAL EXCHANGE TELECOMMUNICATIONS

## BACKGROUND

### Historical Decisions

The market for local exchange telecommunications has changed dramatically during the past twenty-five years. The "Hush-a-Phone" and "Carterfone" decisions of the Federal Communications Commission (FCC) ended the telephone company's monopoly on end-to-end telephone service. These cases, followed by other decisions by the FCC and the courts, have gradually opened up the network for competitive entry on a service-by-service basis.

The first local exchange service opened to competition was customer premises equipment (CPE). In a series of rulings between 1956 and 1975, the FCC ordered telephone companies to allow connection of customer-provided CPE to the network, provided that the units were properly registered with the FCC. The CPE in question included not only single-line telephones, but also key systems and private branch exchanges (PBXs). As a result of the FCC's decisions, a large number of new competitive CPE vendors came on the scene. The transition to competition was cautious, reflecting the telephone utilities' and regulators' concerns that connections with customer-provided equipment might harm the network.

In the "Computer II" decision in 1980, the FCC ruled that telephone companies could no longer lease CPE as a part of the monthly local rates in their regulated business. The companies were required to either transfer their CPE business to an unregulated subsidiary, or use formal accounting safeguards to separate their regulated and unregulated accounts.

Two additional decisions by the FCC in the early 1980s had a significant impact on the level of competition in the local exchange. In 1981, the FCC formalized its plans for granting licenses for cellular telephone service. In 1984, the FCC ordered the telephone companies to allow connection of customer-owned pay telephones to the network.

The divestiture of the Bell Operating Companies (BOCs) from AT&T in 1984 had less immediate impact on local exchange service than on long-distance service. However, it is significant to note that the divestiture agreement prohibited the BOCs from manufacturing or providing customer premises equipment. As a result, all of the

former Bell System's embedded PBXs and key systems were transferred to the ownership of the new AT&T company.

In another decision aimed at increasing competition, the FCC ordered all telephone companies to detariff the provision and maintenance of inside wiring on customers' premises by January 1, 1987.

In 1987, the FCC issued its Computer Inquiry III (CI-3) Order, which allowed AT&T and the BOCs to provide enhanced (as opposed to basic) services, such as voice messaging and electronic mail. The companies could provide these services only if they restructured their network to allow competing enhanced service providers to connect to the network as well. This restructuring was known as Open Network Architecture (ONA). ONA is designed to allow enhanced service providers to purchase specialized elements of service needed to provide specific enhanced services to end users. The CI-3 Order was overturned in federal court in 1990, and the FCC released a revised Order in 1991, which is on appeal.

## Recent FCC Decisions

### Expanded Interconnection

In recent years, new services providers have begun placing independent networks of fiber optic cable in metropolitan areas for the purpose of providing advanced or redundant services to large business customers. These competitors are generally called competitive access providers (CAPs). The services they provide are point-to-point circuits, often with a broad bandwidth, to be used for transport of high speed data, video, or other services. CAPs have argued that they should be allowed to interconnect their network with LECs' network facilities in order to provide additional flexibility in reaching customers.

In September 1992 the FCC took a significant step in the process of expanding the scope of competition for the provision of local telecommunications facilities for interstate access. In CC Docket No. 91-141, *In the Matter of Expanded Interconnection with Local Telephone Company Facilities,* the FCC ordered most large LECs to offer expanded interconnection for interstate special access through physical collocation to all entities, including IXCs, CAPs , enhanced service providers, and end users (see Exhibit 2 for an illustration of Switched and Special Access). This action set the stage for substantially increasing the ability of a LEC's competitors to compete in providing access services. The FCC has issued a Further Notice of Proposed Rulemaking on the question of interconnection to the switched network.

Under physical collocation, LECs will provide leased space within their central offices for interconnecting parties to collocate their own equipment for interconnection of transmission facilities. (Interconnection typically occurs when the facilities of one telecommunications utility are linked with the facilities of a different telecommunications utility to allow traffic to traverse from one network onto the other.) LECs will provide, under tariff, power, environmental conditioning, and conduit and riser space for interconnectors' cable to enter the building. An interconnector's personnel may enter the LEC's central office to install, maintain, and repair the interconnector's transmission equipment. Waivers of the physical collocation requirement may be granted by the FCC in cases where (1) the interconnector voluntarily negotiates a virtual collocation arrangement with the LEC, (2) the LEC lacks adequate space to provide physical collocation, or (3) a state commission or legislature formally adopts a policy in favor of virtual collocation.

Under virtual collocation, the interconnecting party may designate its choice of transmission equipment to be located within the LEC's central offices. The equipment will be dedicated for use by the interconnector, and the interconnector will have the right to remotely monitor and control the equipment it uses. However, the LEC will own (or lease from the interconnector), install, maintain, and repair the equipment.

At least nine LECs have asked the FCC to stay its special access interconnection order pending judicial review or FCC reconsideration. These LECs claim that the FCC's physical collocation requirement is an unlawful and unconstitutional taking of property. In a separate filing and on the same grounds, Southwestern Bell Telephone Company (SWB) requested a stay of the virtual collocation requirement as well.

LEC tariffs governing expanded interconnection for interstate special access, including tariffs for use of central office space, are scheduled to be filed with the FCC in February 1993, to be effective mid-year. Once expanded interconnection for special access is available, LECs are to be granted limited pricing flexibility for special access services. The pricing flexibility will allow LECs to establish three rate zones, corresponding to urban, suburban, and rural areas. LEC central offices will be assigned to one of the three zones based on factors such as traffic density. Within each zone, rates will be averaged. Generally, LECs subject to price cap regulation at the federal level will be permitted to change interstate rates within each zone subject to a -10 percent to +5 percent rate band. Price changes within this rate band are exempted from notice requirements and additional cost justification requirements. For LECs subject to rate of return regulation, rates may not diverge between zones by more than 15 percent the first year, 30 percent the second year, and 45 percent the third year.

A key result of the FCC's action is that competitors of a LEC will be able to provide the transport facilities between a LEC central office and an IXC's point of

presence (POP) for interstate special access services and, perhaps eventually, for interstate switched access services as well. These actions will substantially increase the pressure for similar interconnection for intrastate services, and similar pricing flexibility for intrastate special access rates.

## Transport Order

Under the terms of the Modification of Final Judgment (MFJ) that resulted in the divestiture of the BOCs from AT&T, access rates were required to be cost-based; however, on an interim basis, the local transport portion of access charges was to be assessed on an "equal charge per unit of traffic" basis. Under this equal-charge requirement, both dedicated and common transport facility use was assessed a per-minute-of-use rate, including a distance-sensitive charge. When the equal-charge requirement expired in September 1991, the FCC temporarily extended it and issued a notice of proposed rulemaking to explore other methods of pricing transport. The FCC is moving toward open competition in the transport market and route-specific cost-based pricing for each customer of transport services.

In September 1992 the FCC issued an order to establish a new interim transport rate structure for interstate transport services, in CC Docket No. 91-213, *In the Matter of Transport Rate Structure and Pricing*. This interim rate structure will become effective on November 1, 1993 and will expire on October 31, 1995. Under the old rate structure, IXCs tended to order from a LEC more facilities than needed for their traffic, because switched access charges were based on traffic volumes rather than facility costs. AT&T estimated the cost of under-utilized facilities to be $1 billion. The FCC's goals in restructuring interstate transport rates were as follows:

1) to encourage cost reductions and efficient use of transport facilities by cost-based pricing;
2) to adopt a rate structure conducive to full and fair interexchange competition; and
3) to avoid interference with the development of interstate access competition (anticipating expanded interconnection for switched transport).

The interim rate structure for interstate switched access traffic has three elements:

1) a flat-rated entrance facilities charge, which covers the connection from the IXC's POP to the serving wire center (SWC);

2) a transport charge that is (a) flat-rated for directly routed traffic between the SWC and the end-office or (b) usage-based for tandem-switched traffic between the SWC and end-office; and

3) an interconnection charge paid by all carriers that interconnect to a LEC's switched access network.

LECs are allowed to propose distance-sensitive rates for all three elements.

This action by the FCC will enable large IXCs to take advantage of the cost savings associated with their ability to use dedicated facilities for their interstate access traffic. The FCC has estimated the interim rate structure will reduce switched access costs for large IXCs by 0.6 percent, will increase switched access costs for medium IXCs by 0.9 percent, and will increase switched access charges for small IXCs by 1.8 percent.

## Video Dialtone

Under the Cable Communications Policy Act of 1984 (Cable Act of 1984), common carriers are prohibited from providing video programming directly to subscribers in their certificated areas, either directly or indirectly through an affiliate. The FCC's rules, however, were more restrictive than this statutory prohibition in that they prevented LECs from exceeding a "carrier/user" relationship with video programmers and generally prohibited them from having any financial interest in video programmers. In CC Docket No. 87-266, *In the Matter of Telephone Company Cable Television Cross-Ownership Rules, Sections 63.54 - 63.58*, the FCC allowed LECs to take greater advantage of the opportunities permitted under the Cable Act of 1984.

In order to create increased investment opportunities for the development of an advanced telecommunications infrastructure and to foster additional competition in the video and communications markets, the FCC amended its rules to allow, but not require, LECs to offer video dialtone. Under the video dialtone concept, LECs will be permitted to make available to multiple providers a basic common carrier platform that can deliver video programming and other services to end users. This common carrier platform will enable multiple service providers to obtain equal access to the basic network functions needed to distribute their services to consumers.

These changes will permit LECs to respond to market demand for their participation in the video marketplace. Just as telephone companies today are able to offer a range of functions to information service providers and consumers in the non-video context, video dialtone will permit LECs to offer similar functions in the video marketplace. The common carrier platform will serve as a foundation on which LECs and others can competitively provide services via video gateways. For example, LECs

and others could offer video programming functions and capabilities that would allow a subscriber to store selected video programs and relay portions of a program, or to create tailored menus, searches, and navigational aids.

According to the FCC, existing regulatory safeguards will be relied upon to guard against anticompetitive behavior by LECs in the video market place. Additionally, under the FCC's rules, LECs will not be permitted to have a cognizable financial interest in video programming.

Since a LEC offering video dialtone with its common carrier platform will not be providing video programming directly to its subscribers in the manner of traditional cable operators, the FCC concluded that video dialtone is fully consistent with the statutory telephone company-cable television cross-ownership rules.

## Other Recent Federal Activity

### Lifting of the MFJ Restriction on Information Services Provision by BOCs

Under the MFJ, the BOCs were prohibited from providing information services. An information service is defined in the MFJ as "the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information which may be conveyed via telecommunications." Information services include data processing, electronic publishing, voice answering services, electronic mail, videotex, and electronic versions of Yellow Pages.

In July 1991 U.S. District Judge Harold Greene reluctantly removed the information services restriction of the MFJ, based on a ruling by the U.S. Court of Appeals. Judge Greene immediately stayed the effects of his decision pending the completion of appellate review. However, the U.S. Court of Appeals in October 1991 vacated the stay imposed by Judge Greene, allowing the BOCs to immediately provide any information services they wish. The appeal on the merits of Judge Greene's order is pending.

The BOCs and certain other parties have praised the U.S. Court of Appeals decision and claim that it will allow a host of new and innovative services to be provided to the public over the BOCs' telephone lines. The newspaper industry, cable companies, broadcasters, and consumer groups predict dire consequences as a result of BOC entry into the information services market, primarily because of the ability of the BOCs to exercise market power. These opponents allege that the BOCs' market power is a consequence of their ownership of the local exchange facilities, through which most traffic must still pass to be delivered to the customer.

# COMMISSION ACTIONS

Most states continue to regulate local exchange companies' intrastate rates and services, including local exchange service, intrastate long-distance, and access to the interexchange intrastate network. In Texas, the Commission is vested by PURA with the authority to regulate telecommunications.

## Local Exchange Service Definition
## (Substantive Rule 23.61(a)(18))

Under PURA, the provision of local exchange service is one means by which a telecommunications utility is determined to be a dominant carrier. Therefore, the Commission's definition of local exchange service has a significant impact on the regulatory treatment of carriers providing services in the local exchange, and thus on the development of local telecommunications competition.

In mid-1990, SWB filed with the Commission a request that the Commission order CAPs to cease and desist from providing service in Texas. Rather than proceed on a fifteen-year-old definition of local exchange service, the Commission undertook to revise that definition relying in part on the directive in PURA, Section 18(a). That section provides that the Commission must formulate and apply new rules and policies "to protect the public interest and to provide equal opportunity to all telecommunications utilities in a competitive marketplace."

After two years of debate, the Commission adopted a revised definition of local exchange service in October 1992 that allows some degree of local competition. The new definition defines local exchange service very broadly as telecommunications service provided within an exchange; however, certain specific telecommunications services are excepted from the definition.

The practical effect of excepting certain services from the definition of local exchange service is to open these local services to competition. A telecommunications utility that provides only the excepted services within an exchange is not providing local exchange service and is therefore not subject to certification as a dominant carrier. Generally, the definition excepts the following from local exchange service: services for which LECs have been granted authority to engage in pricing flexibility; private line services; some resale or sharing of local exchange service; dark (unpowered) fiber services; non-voice data transmission services; dedicated and virtually dedicated access services; any service initially provided within an exchange, if first provided by an entity other than a LEC; and any service that the Commission determines by final order in a docketed proceeding is not local exchange service.

On December 2, 1992, SWB filed in District Court a challenge to this definition.

## Private Pay Telephone Service
## (Substantive Rule 23.54)

The Seventy-First Legislature exempted private pay telephone owners in 1989 from the definition of "telecommunications utilities" in PURA, Section 3(c)(2)(A). Private pay telephones are those pay telephones provided by someone other than LECs.

In order for consumers in Texas to have access to pay telephone service that meets minimum standards, the Commission in 1989 adopted a private pay telephone service rule. The rule applies not to private pay telephone providers, but to LECs. The rule allows LECs to provide services only to those private pay telephone providers who comply with the requirements set forth in the rule.

In 1991 the Commission significantly revised the rules. The primary impetus for the revision was the introduction of a microprocessor component that allows private pay telephones to record and process the information necessary to complete and bill certain operator service calls (e.g., calling card and collect calls) without external assistance. This technology often is referred to as store-and-forward technology. In effect, the private pay telephone owner can operate as an operator service provider (OSP) in these instances. However, because they are exempt from the definition of telecommunications utilities in PURA, Section 3(c)(2)(A), private pay telephone owners who use store-and-forward technology are exempt from the Commission's OSP regulation, despite the fact that the OSP legislation (PURA, Section 18A) apparently was meant to include automated operator services.

To obtain service from a LEC, the 1991 revised rule requires a private pay telephone provider to: (1) comply with the minimum service standards included in the original rule; and (2) when using store-and-forward technology, comply with requirements similar to those in the Commission's operator services rule.

Pursuant to the requirements of the rule, a private pay telephone provider must:

1) post certain information at the telephone;
2) allow access to the LEC and to carriers other than the presubscribed carrier;
3) provide appropriate emergency call routing; and
4) meet other minimum service standards.

Additionally, the private pay telephone service rule contains extensive fraud protection mechanisms and sets forth LECs' obligations in providing the service.

## New and Experimental Services
## (Substantive Rule 23.26)

Section 23.26 of the Commission's Substantive Rules provides a process by which a LEC may offer and price new and experimental services, as contemplated by PURA, Section 18(f). The provisions of this rule allow a LEC to receive expedited administrative processing and approval of an application with respect to such services. While an experimental service must also be a new service, a new service does not have to be experimental. The purpose of the rule is to provide new services to the public in a more timely manner than is accomplished in docketed proceedings. However, if the provision of a new or experimental service raises issues that cannot be adequately addressed under the expedited review process, the presiding examiner may determine that an application should be docketed to receive a more thorough review.

In order to utilize the expedited administrative review process, a LEC must file an application to provide a new or experimental service with the Commission and the Office of Public Utility Counsel at least 30 days before the service's proposed effective date. The LEC must document that the proposed rates for the service will recover the system-wide long-run incremental cost of that service and provide a contribution to joint and common costs, thereby demonstrating that the service is not being subsidized by other regulated LEC provided services. If the service is not to be offered system-wide, the LEC must explain the nature of any technical limitations that prevent the LEC from providing the service in any particular exchange in its service area. Further, the LEC must include an implementation plan for offering the new service in such exchanges if customers request it. This provision of the rule helps ensure that rural areas of the state are not denied access to advanced telecommunications services.

The number of applications that have received approval through the process outlined in Section 23.26, by fiscal year, are as follows:

| Fiscal Year | Filed | Administratively Approved |
|---|---|---|
| 1990 (9/1/89 - 8/31/90) | 8 | 7 |
| 1991 (9/1/90 - 8/31/91) | 19 | 9 |
| 1992 (9/1/91 - 8/31/92) | 20 | 9 |

For this three-year period, 16 of the applications filed that were not administratively approved were docketed. The remaining applications were either

withdrawn or dismissed. If an application is docketed, the approval process may take significantly longer than required under the administrative approval process.

## Rate-Setting Flexibility for Services Subject to Significant Competitive Challenges (Substantive Rule 23.27)

Under PURA, Section 18(e), the Commission has the authority to establish procedures applicable to LECs to determine the level of competition in specific telecommunications markets and submarkets, and to apply appropriate regulatory treatment to LECs to allow them to respond to significant competitive challenges. Among the regulatory treatments which the Commission may implement for those services it deems are subject to significant competition are rate-banding (establishment of a range of allowable rates), customer-specific contracts, and detariffing. In addition, PURA, Section 18(e) requires that the Commission allow customer-specific contracts for (1) central office-based (C.O.-based) PBX-type services for systems of 200 stations or more, (2) billing and collection services, (3) high-speed private line services of 1.544 megabits or greater, and (4) customized services. PURA imposes certain conditions for approval of a customer-specific contract, including that the contract recover the appropriate costs of providing the service.

Section 23.27 of the Commission's Substantive Rules outlines the procedure for a LEC to obtain pricing flexibility for a service subject to significant competitive challenges. Specifically, a LEC must submit information supporting the competitive nature of the service in question. An evidentiary hearing is held to determine the extent of competition for the service and the type of pricing flexibility, if any, to be granted. The Commission will consider, among other things, the extent to which a substitutable service is available and the existence of barriers to entry or exit for a provider of the service.

If rate-banding is approved, the LEC must file a tariff showing the minimum and maximum rates and specifying its current rate. The minimum rates must recover 105 percent of the long-run incremental costs of providing the service. Customer-specific contracts also must meet this cost standard. The LEC is required to demonstrate that the terms of a customer-specific contract: (1) are not unreasonably preferential, prejudicial, or discriminatory; (2) are such that the service will not be subsidized by regulated monopoly services; and (3) are not predatory or anticompetitive.

A substantial revision of Section 23.27 was adopted on October 26, 1992. The revised rule clarifies the procedures and requirements for a LEC to request and obtain pricing flexibility. On December 2, 1992, SWB filed in District Court a challenge to this rule.

Three applications for pricing flexibility have been filed pursuant to Section 23.27. In December 1989, SWB filed an application to detariff billing and collection services, Docket No. 9224. That application was subsequently withdrawn.

On January 8, 1990, SWB filed an application requesting pricing flexibility for C.O.-based local area network (C.O. LAN) service, Docket No. 9301. The case was abated pending the resolution of the Commission's rulemaking to amend the definition of local exchange service. Although that rulemaking was concluded, the parties to Docket No. 9301 have agreed to continued abatement. In a stipulation filed December 7, 1992, the parties agreed that SWB will seek approval to offer its C.O. LAN service on a tariffed basis and withdraw its application for pricing flexibility.

On January 4, 1991, SWB filed the third application for pricing flexibility in the provision of C.O.-based PBX-type services for systems with 75 to 200 stations, Docket No. 9960. The intent of the application was to obtain customer-specific pricing for C.O.-based PBX-type services for systems with 75 to 200 stations. The parties to this case stipulated that only one component of C.O.-based PBX-type service for systems serving 75 to 200 stations would be flexibly priced, namely, those switch functions that can be replaced by a PBX or key system. The remaining components of the service may not be flexibly priced, but must be available at tariffed rates.

Under Section 23.27 Commission approval must be obtained for customer-specific contracts for C.O.-based PBX-type services for systems of 200 stations or more (to the extent that these services compete with CPE provided by PBX vendors), billing and collection service, high-speed private line services of 1.544 megabits or greater, customized services that are unique because of size or configuration, and any other service for which customer-specific pricing is granted. An application for approval of a customer-specific contract must be filed at least 30 days before the initiation of service and may be granted interim approval for good cause. The Commission must approve or deny an application within 30 days of receiving a complete filing unless the presiding examiner, for good cause, suspends the effective date for an additional 35 days. If the examiner denies the application after administrative review, the LEC may request that the application be docketed. In such instances, the Commission's rules for docketed proceedings are applicable.

Almost 200 applications for approval of customer-specific contracts have been filed, primarily by SWB. Virtually all of these applications have been either approved or withdrawn.

The table below shows the number of customer-specific contracts filed and approved, in each fiscal year, through the process outlined in Section 23.27. The table below reflects final approvals. All the contracts filed in Fiscal Year 1993 and a

significant number of those filed in Fiscal Year 1992 received interim approval pending the resolution of a General Counsel inquiry, discussed more fully below.

| Fiscal Year | Filed | Administratively Approved |
|---|---|---|
| 1990 (9/1/89 - 8/31/90) | 0 | 0 |
| 1991 (9/1/90 - 8/31/91) | 49 | 42 |
| 1992 (9/1/91 - 8/31/92) | 115 | 62 |
| 1993 (9/1/92 - present) | 22 | 0 |

On July 23, 1992 General Counsel initiated an inquiry into SWB's C.O.-based PBX-type services for which flexible pricing is permitted. In its petition, General Counsel alleges that the rates, terms, and conditions of those services are (1) unreasonably preferential, prejudicial, or discriminatory; (2) subsidized either directly or indirectly by regulated monopoly services; and/or (3) predatory or anticompetitive and therefore violate PURA, Sections 18, 38, 42, 45, and 47.

## Promotional Rates
## (Substantive Rule 23.28)

Pursuant to PURA, Section 18(f), Section 23.28 of the Commission's Substantive Rules was designed to provide LECs the opportunity to increase subscribership of particular services. LECs receive expedited administrative processing and approval under this section of the Commission's Substantive Rules.

The filing requirements and the Commission's review process for promotional rates are similar to those for new or competitive services. With an application for promotional rates, the LEC must define the period in which the rates are to be in effect and provide a description of all instances in the previous five years in which the LEC has utilized this rule for the service that is the subject of the application. This provision ensures that the company does not offer "sale" prices indefinitely.

The Commission has established the following limits on the use of promotional rates:

- they must be in effect in every exchange in which the LEC offers the service, unless a waiver is granted;
- they must not be offered for more than six months in any five-year period, and no customer is to receive a service at promotional rates for more than three consecutive months;

- they may be offered to only new customers of a service; however, current customers may purchase additional units of the service at promotional rates; and
- they must recover the long-run incremental cost of the service, with the following exception: the LEC may request a rate lower than cost if it can demonstrate that the promotional rate will make full cost recovery more likely. However, the Commission will not approve a rate below incremental cost if the service has been found to be subject to significant competition.

The number of applications that have received approval through the process outlined in Section 23.28, by fiscal year, are as follows:

| Fiscal Year | Filed | Administratively Approved |
|---|---|---|
| 1990 (9/1/89 - 8/31/90) | 2 | 2 |
| 1991 (9/1/90 - 8/31/91) | 2 | 1 |
| 1992 (9/1/91 - 8/31/92) | 5 | 5 |

## Access Services
## (Substantive Rule 23.23(d))

In order for long-distance carriers to be able to provide long-distance services to customers, access to the local exchange network is needed. Traditionally, LECs have provided network access services to IXCs for that purpose. However, multiple providers are entering this market.

Access customers compensate LECs for the use of local exchange networks. Exhibit 2 shows, on a conceptual level, how the two primary types of access, switched access and special access, are provided.

Intrastate access rate structures were established simultaneously with the break-up of the Bell system. Even though switched access rates in Texas were initially set to mirror the FCC's interstate access rates, switched access rates in Texas did not change significantly for many years, even though the FCC's interstate access rates were reduced to approximately 1/3 the level of Texas' switched access rates. One of the primary reasons the FCC was able to reduce interstate access rates was its establishment of the subscriber line charge. The subscriber line charge is a fixed monthly charge included on end users' bills of $3.50 per residence subscriber line and $4.70 to $6.00 per business subscriber line.

In 1990 the Commission began efforts to establish policy for access services and in 1992 adopted a rule that facilitates access rate reductions. Access rate reductions will affect both LEC revenue and the charges paid by IXCs in the provision of long-distance services. For a discussion of the impact of the access rule on interLATA competition, see page 52.

Central to the success of the access rulemaking was an industry proposal permitting the phased elimination of the Interexchange Carrier Access Charge (ICAC) pool. The ICAC pool, established in 1984, had outlived its original purpose, which was to financially supplement the revenue of LECs on a temporary basis in the post-divestiture period. The Commission's access rule ordered the phase-out of the ICAC pool over a three-year period ending in 1995; the Commission simultaneously established a high cost assistance program through the adoption of Substantive Rule 23.53(d). The high cost assistance program offers needs-based financial assistance to LECs that provide service in high cost and rural areas of the state.

## Pending Cases with Significant Competitive Issues

***Complaint of Metropolitan Fiber Systems, Inc. Against Southwestern Bell Telephone*** (Docket No. 9640)

On July 5, 1990, Metropolitan Fiber Systems (MFS) filed a request with the Commission that, among other things, SWB be compelled to offer MFS cost-effective and technically suitable interconnection to SWB's local access facilities. In October 1990 the proceeding was abated pending resolution of a number of related proceedings, including a Commission rulemaking to revise the definition of local exchange service.

Though reactivated in September, 1991, the proceeding was abated once again in June, 1992 pending the conclusion of a federal rulemaking to consider interconnection of facilities for competitive carriers providing local access services (*In the Matter of Expanded Interconnection with Local Telephone Company Facilities*, CC Docket No. 91-141). By order released October 19, 1992, the FCC required Tier 1 LECs, such as SWB, GTE Southwest Incorporated (GTE-SW), and Contel of Texas, Inc., to offer expanded interconnection to all interested parties, permitting competitors and high-volume users to terminate their own special access transmission facilities at LEC central offices. Despite issuance of the FCC's order, Docket No. 9640 remains abated at the parties' request. The parties agree that additional time is needed both to evaluate the FCC's order and to allow certain parties sufficient time to seek a reconsideration of that order.

***Requests of Southwestern Bell Telephone Company to Obsolete and Grandfather Centrex Services and Joint Application of the Parties to Determine if the Restrictions, Terms, and Conditions Associated with the Sharing of Centrex and Plexar Services are Unreasonable as a Matter of Regulatory Policy or in Violation of any Law***
(Docket No. 11109)

This proceeding was established by an agreement of the parties to sever these issues from a previous docket, Docket No. 9960. In that docket, SWB had requested rate-setting flexibility for C.O.-based PBX-type services for arrangements of 75 to 200 stations.

One of the parties to Docket No. 11109 is Centex Telemanagement, Inc., a telecommunications management company doing business in eight states. Centex alleges that SWB refuses to provide service to Centex through the unreasonable and unlawful application of restrictions in SWB's tariff. Tariff restrictions are provisions in a LEC's tariffs that restrict certain types of customers from purchasing telephone service at the price listed in the tariff.

SWB has requested that the Commission allow it to discontinue offering two of the five C.O.-based PBX-type services it currently offers. These services have lower average prices and fewer tariff restrictions than the other C.O.-based PBX-type services. SWB proposes to "grandfather" the services by allowing current customers to continue obtaining the service from SWB indefinitely, at current rates.

***General Counsel's Inquiry into the Reasonableness of the Rates, Terms, and Conditions of Southwestern Bell Telephone Company's Central Office-based PBX-Type Services for which Flexible Pricing is Permitted***
(Docket No. 11336)

On July 23, 1992 the General Counsel filed a petition for an inquiry into certain of SWB's C.O.-based PBX-type services. Among other things, the General Counsel alleged that the rates, terms, and conditions relating to SWB's flexibly-priced C.O.-based PBX-type services violate PURA because they (1) are unreasonably preferential, prejudicial, or discriminatory; (2) are subsidized either directly or indirectly by regulated monopoly services; and/or (3) are predatory or anticompetitive.

In his petition, the General Counsel identified 10 specific issues that warranted inquiry, including the existence and bundling of SWB's Plexar-Custom service with SWB's monopoly components; the appropriate treatment of investments and depreciation; and the long-run incremental cost methodology used by SWB. No date has been set for hearing.

***Petitions of Infodial, Inc., the Austin American-Statesman, The Longview News Journal, the Waco Tribune-Herald, the Lufkin Daily News, Adpost, Inc., and the Dallas Morning News for Assignment of Abbreviated N11 Dialing Codes***
(Docket No. 11441)

On September 8, 1992 Infodial, Inc. filed a petition requesting that the Commission enter an order directing all LECs to assign to it the abbreviated N11 dialing code 511, or another available N11 code. Adpost filed a similar petition, previously Docket No. 11592, which was consolidated with this proceeding. Additional parties filed similar petitions, which were also consolidated.

There are several N11 codes not currently in use in Texas. The petitioners contend that assignment of these codes to independent information services providers is in the public interest because it will: (1) generate additional revenue for a LEC without significant additional investment, thus making a contribution to basic local service, (2) stimulate the dissemination of information to the public, (3) allow for the development of new services and (4) permit the opportunity for competition in the information services industry. Furthermore, the petitioners allege that failure to allow information providers to use a three-digit dialing code would amount to discriminatory and anti-competitive behavior.

The issue of assignment of N11 codes is currently the subject of an FCC rulemaking, CC Docket 92-105.

***Inquiry of the General Counsel into the Marketing and Business Practices of Southwestern Bell***
(Docket No. 11487)

SWB's affiliate, Southwestern Bell Messaging Services, Inc. (SMSi), is a provider of voice messaging service (VMS). VMS is an enhanced service that SWB is allowed to offer to the public, provided it complies with competitive safeguards set forth by the FCC. (For a discussion of these federal safeguards, see page 36.) SWB, however, does not consider itself the provider of the VMS that its affiliate SMSi now provides to the public.

On September 24, 1992, General Counsel initiated an inquiry into SWB's marketing and business practices, alleging the company's conduct to be unlawful, anticompetitive, and discriminatory. Specifically, the inquiry investigates (1) SWB's business and marketing practices in relation to its provision of tariffed and nontariffed services to SMSi and (2) the deployment, quality, functions, and rates of network services provided by SWB to VMS providers, including both its affiliate, SMSi, and nonaffiliates.

Concerns about unfair affiliate transactions, anti-competitive behavior (e.g., cross-subsidization), and compliance by SWB with FCC safeguards, coupled with a complaint by STAT Communications, a VMS provider not affiliated with SWB, alleging unfair business practices by SWB and SMSi, prompted this inquiry.

# SCOPE OF COMPETITION

Local exchange service is provided in Texas by 61 LECs, each of which has a Certificate of Convenience and Necessity to provide service within its service area. Twenty-seven LECs are cooperatives; the remainder are investor-owned. Texas' largest LECs are SWB, a BOC created at the divestiture of AT&T, and GTE/Contel, the product of a recent merger. Exhibit 3 illustrates information about LEC revenue by LEC type and service category. The second page of this exhibit shows the trend of investor-owned LEC revenues from 1989 to 1992.

Because LECs have many customers who face no alternative suppliers for the telecommunications services they use, regulators monitor all activities of LECs, both competitive and noncompetitive, regulated and unregulated, to ensure that the rates for regulated services do not contain some subsidy for a competitive service.

On July 9, 1992 the Commission staff sent a questionnaire, the LEC Data Report, to Texas LECs seeking detailed and quantitative information about the scope of competition in local telecommunications markets.

Discussed below are various local services that provide actual or potential competition for LECs, or that represent a LEC response to competition. Because LECs face competition largely from providers such as private microwave service providers, PBX vendors and other firms that are not regulated by the Commission (and who therefore are not required to file reports with the Commission), the discussion below regarding the level of competition is based to a large extent on the LECs' perspective on competition.

## Plain Old Telephone Service (POTS)

POTS, or Plain Old Telephone Service, refers to basic local exchange telecommunications service, devoid of any options or capabilities beyond essential voice communication requirements. As the concept of universal service evolves, POTS is becoming more than just the provision of dial tone. In a number of cases initiated to reduce LEC overearnings, the Commission has approved settlements which reduced or eliminated installation and monthly charges for touch-tone dialing. These settlements have had the effect of making touch-tone a part of POTS. Over time, as advanced features are reclassified as basic services, the definition of POTS will continue to evolve.

There is virtually no competition for POTS to residences at this time, and there is only a limited degree of competition for POTS to business customers. However, in responses to the LEC Data Report, a number of LECs are concerned about the future

threat to the local exchange access subscriber base posed by wireless technologies, especially personal communications services (PCS) and cellular. CAPs and Cable television firms are also capable of making incursions into the market, and many LECs have estimated revenue losses in the millions of dollars should these technologies mature and become a flexible, low-cost alternative to local exchange service.

## Private Pay Telephones

Since the FCC opened pay telephone service to competition in 1984, there has been a proliferation of private pay telephone vendors and service providers in Texas. These privately owned pay telephones are referred to as "customer-owned coin-operated telephones" or "private pay telephones."

A microprocessor component now exists that allows private pay telephones to record and process the information necessary to complete and bill certain operator service calls (e.g., calling card and collect calls) without external assistance. This technology often is referred to as store-and-forward technology. In effect, the private pay telephone owner can operate as an OSP in these instances.

In addition to store-and-forward technology, private pay telephone manufacturers offer voice messaging. After a pay telephone user receives a busy signal or no answer, a digitized voice asks if he/she wants to leave a message. If the answer is yes, the caller is routed to a message delivery system, which records the caller's message. Calls are placed at regular intervals for a pre-set period of time until someone answers, at which time the recorded message is played.

Today anyone may buy a private pay telephone and go into business. The growth of the industry has been impressive. SWB and GTE have provided the following statistical data on the number of private pay telephones located within their service areas.

| Year | Public Pay Telephone Stations | | Private Pay Telephone Stations | |
|---|---|---|---|---|
| | SWB | GTE | SWB | GTE |
| 1985 | 97,611 | d.n.a. | 580 | d.n.a. |
| 1986 | 96,078 | d.n.a. | 4,961 | d.n.a. |
| 1987 | 92,996 | d.n.a. | 8,281 | d.n.a. |
| 1988 | 86,677 | d.n.a. | 13,190 | d.n.a. |
| 1989 | 85,906 | d.n.a. | 18,214 | d.n.a. |
| 1990 | 87,918 | 12,228 | 22,867 | 3,199 |
| 1991 | 85,131 | 9,232 | 23,745 | 3,889 |
| 1992 | 86,202 | 8,876 | 25,445 | 4,963 |

In response to the LEC Data Report (see page 20), private pay telephones were cited by 23 LECs as a source of significant competition. SWB estimates in its response to the LEC Data Report that it foregoes $29,626,182 annually in potential pay telephone revenue due to competition from private pay telephone stations in its service territory. SWB has stated that the revenue decrease is due primarily to intraLATA toll revenue lost to presubscribed toll carriers. This figure is offset by private pay telephone revenue of $15,358,000 and End User Common Line charges of $2,198,000, leaving the net claimed revenue loss at approximately $12,070,182. In addition, SWB incurs no maintenance or collection expenses on private pay telephone stations.

Several other LECs have reported revenue losses in the LEC Data Reports from pay telephone services ranging from Lufkin-Conroe's $21,000 claim to Centel's $1.86 million; and Southwest Texas estimates a 28 percent decrease in pay telephone collections. The extent to which these estimates are moderated by revenue from private pay telephone subscribers is not known.

Substantive Rule 23.54 provides certain protections for users of private pay telephones. For a discussion of the Commission's regulation of private pay telephone services, see page 10.

## Central Office-based PBX-type Services (Centrex)

A PBX is a customer-owned telecommunications switch used with customer premises inside wiring and telephone sets to provide communication within the

d.n.a. Data not available

customer's premises. In addition to intercom (intra-system) calling, a PBX can typically provide functions such as call forwarding, call hold, and conference calling. Centrex is a generic name for C.O.-based PBX-type services. C.O.-based PBX-type service refers to the use of the LEC's central office switch to provide communications within a customer's business as a substitute for CPE, such as a PBX or key system. These services provide the same functions that can be obtained from customer-owned equipment, such as a PBX, used in conjunction with LEC PBX Trunk Service.

The Commission staff requested information through the LEC Data Report on both large (200 stations or more) and small (fewer than 200 stations) Centrex services.

According to the LEC Data Report response, the chief competition to LECs for large Centrex systems consists of 36 different PBX or Hybrid PBX products produced by 19 manufacturers and sold by more than 250 vendors in Texas. The top three competitors, as described by SWB, are AT&T, with a 36.7 percent market share, Northern Telecom with 22.7 percent, and Rolm Systems, with 14.2 percent of the market.

Centel claimed an annual revenue loss of $3.34 million in this category from services lost to 24 competitors. SWB gave no quantification of revenue losses.

The makeup of the competition in the small Centrex segment is similar to that for the over-200 station category. SWB claims lost opportunities because the 75-to-200 station segment has not been declared competitive with customer-specific pricing. SWB did not provide an estimate of lost revenue in its report for this service segment. Centel alleges a revenue loss of over $5.7 million to competitors in the small Centrex service category.

## Central Office-based Local Area Network (C.O. LAN)

A local area network (LAN) is a communications path that connects several computers or a series of cathode ray terminals (CRTs) to a host computer. A LAN allows communication between computers in the network enabling the users in the network to share files and memory capacity. One type of LAN might connect several personal computers located within a single business location. Another type of LAN might connect a large number of CRTs in different business locations to one large host computer.

A LEC may enter the LAN market after approval of a C.O. LAN tariff. C.O. LAN service provides for the transmission of data between customer-provided data devices by using local telephone loops as the access element to a switch located at the central office. The switch is capable of switching data traffic from terminal to

terminal, terminal to host computer, and host computer to host computer. In order to transmit data over the local telephone loop, one integrated voice-data multiplexer (IVDM) is required at the customer's premises and one IVDM is required in the central office. The IVDM combines both data and voice signals onto the same pair of wires, allowing voice and data to be simultaneously transmitted over the same path.

No specific references were made to C.O. LAN competition in the LEC Data Reports.

## Billing and Collection Services

Billing and collection services were detariffed on an interstate basis by the FCC in 1985 and are deregulated in Arkansas, Oklahoma, Kansas and Missouri. Pursuant to PURA, Section 18(e)(3)(B) LECs operating in Texas may request approval of customer-specific contracts for billing and collection service. Such applications are reviewed pursuant to Substantive Rule 23.27, which sets forth the applicable approval standards. For a discussion of Commission approval of such contracts, see page 12.

| Fiscal Year | Filed | Administratively Approved |
|---|---|---|
| 1990 (9/1/89 - 8/31/90) | 0 | 0 |
| 1991 (9/1/90 - 8/31 91) | 1 | 0 |
| 1992 (9/1/91 - 8/31/92) | 18 | 17 |
| 1993 (9/1/92 - present) | 2 | 2 |

Only one LEC responded to this category in the LEC Data Report. SWB stated that a primary customer, AT&T, has gradually reclaimed its billing and collections functions from the LEC, reducing Bell's share of AT&T's billings from almost 100 percent to about 30 percent. SWB did not quantify the revenue loss. According to this LEC, 27 firms are said to have the capacity to perform billing and collection services for telecommunications companies.

## Private Line Services

Private line services consist of transmission facilities that are dedicated to a customer and that are not directly connected to the public switched telephone network. Private line services can be used to transport either data or voice transmissions within an exchange, within a LATA, or to provide intrastate interLATA or interstate communications.

The Commission recently amended its definition of local exchange service to specifically exclude intraexchange private line services from that definition. As a result, the Commission currently does not exercise rate regulation over intra- or interexchange private line services offered by nondominant telecommunications utilities.

LECs may, with Commission approval, provide high-speed private line services (for transmission rates of 1.544 megabits or greater) on a customer-specific pricing basis. Pricing flexibility for these private line services in the form of customer-specific contracts is permitted by PURA, Section 18(e). Substantive Rule 23.27 outlines the procedure for approval of customer-specific contracts (see page 12). It should be noted that SWB does not use the procedures set forth in that Substantive Rule. Rather, pursuant to its Customer-Specific Pricing Plan Tariff for High-Capacity Network Service, SWB submits informational filings in which it (1) identifies the customer; (2) describes the service, location, and contract term; and (3) specifies the monthly rate and non-recurring charge associated with the service. The Commission takes no action on these filings other than to acknowledge receipt. SWB has submitted 94 filings since approval of that tariff, with 46 of those filings made in the last two years.

Private line services are often used to transmit data, typically at transmission speeds of 2.4, 4.8, 9.6, 19.2 and 56 kilobits per second (Kbps). As the need to transmit data increases, technology is evolving that allows these data transmissions to be sent through the public switched network instead of on a dedicated private line. Thus, LECs are increasingly able to offer services that compete with private line service. This development tends to increase choices in the already competitive private line service market.

In the LEC Data Report, the utilities were asked to respond to the scope and impact of competition in private line services, categorized by circuits with bandwidths of 1.544 megabits or greater, and those with bandwidths of less than 1.544 megabits. SWB aggregated the private line services into one category with no distinction given to bit-rate capacities. SWB identified its primary competitors as IXCs, CAPs, microwave vendors, VSAT (satellite) providers, cable television (community antenna television or CATV) companies, and private network and dark fiber providers. The company claims that IXCs have an incentive to construct or lease private lines, especially from the customer's premise to the carrier's POP, in order to secure the customer's toll traffic.

Microwave vendors, according to Bell, are its major competitors in the private line market, and are allegedly in a growth phase due to strong demand. "Dark fiber" providers, according to a Bell study, are a significant presence in its service territory. Bell claims a revenue loss of $22.7 million (17.2 percent) from 1988 to 1991 in the

"Analog Private Line" market, and submitted a $15,190,846. annual revenue loss to the FCC in April, 1992, ostensibly caused by facility bypass in the private line market.

Muenster is the only respondent to directly address the 1.544 megabit and greater market specifically. Muenster contends that a customer in one of its exchanges bypasses the LEC's toll facilities. The LEC claims that this bypass results in an annual access revenue loss of $100,000.

## Directory Publishing

Publication of advertising ("yellow pages") directories is not regulated by the Commission or the FCC; however, the Commission imputes the net contribution from yellow pages in any LEC rate case. Telephone company publishing is generally handled by an affiliates of a LEC. These companies compete with each other and with other publishers.

In the future, telephone directories may face increasing competition from computerized nationwide databases of telephone numbers. These computerized directories can be provided by anyone, including a LEC, and can be accessed from a standard personal computer.

## Shared Tenant Services (STS)

During the accelerated period of commercial real estate development in the early 1980s, a large number of buildings were designed with an integrated technological package that included specialized telecommunications. A tenant is provided service through a PBX switch located in the building, and can obtain features such as voice messaging and alternative toll carrier selection. An STS provider obtains local service through PBX trunks provided by the LEC, and often obtains toll service from a number of IXCs. When an IXC furnishes the STS provider with direct trunk connection to its switch, the LEC loses some access revenue.

Businesses or residents in a building served by an STS provider may obtain telephone service from the STS provider rather than obtaining distinctly separate telecommunications service directly from the telephone company. Although the telephone company is still providing standard access lines to the building, fewer lines may be required and the LEC loses the opportunity to market optional services to the end user.

LECs have viewed this configuration as the competitive provision of local exchange service within the building or property. In Docket No. 5952 (1986) the Commission found, however, that STS did not fall within the definition of local

exchange service as set out in the Commission's Substantive Rules. In that docket, the Commission also determined that the joint provision to occupants of a building or complex ("smart building") of such services as data transmission, word processing, security voice mail, and environmental control was likewise outside its local exchange service definition.

The issue has been revisited by the Commission on a number of occasions. In Dockets Nos. 6076 and 6450 (1986), the Commission recognized that it needed to impose continuous property restrictions on the provision of STS operations in order to remove the potential for appropriation of large portions of SWB's territory by unregulated entities. The most recent modification of the Commission's local exchange service definition explicitly excludes STS from the definition of local exchange service.

In response to the LEC Data Report, two LECs cited actual competition from STS providers, and several other LECs expressed concern over the potential for future competition from STS providers. No LEC offered any estimate of revenue harm due to competitive activity from STS providers.

## Cable Television

Cable television systems are another source of potential competition in the local exchange market. Because one network can potentially be used to transmit telephone communications, television programming and other information, it may be economically efficient in the long run to provide many services over the same facilities.

Today's cable television systems are mainly one-way providers of entertainment and information services. CableLabs, CATV's jointly funded research and development company, is exploring efforts to transform CATV's infrastructure into a provider of two-way interactive entertainment, information, and data services, as well as basic telecommunications services.

Currently, CATV systems consist of mostly coaxial cable in tree-and-branch architectures. The industry as a whole has been upgrading its infrastructure by installing fiber optic cable to enhance maintainability and reliability. Operators of multiple system operators, such as Tele-Communications, Inc. and Time-Warner, Inc., are working with CableLabs to use technology in the fields of fiber optics, microcomputers, data transport, mass data storage, and digital switching to build interactive broadband telecommunications networks. These companies are working with hardware and software companies, such as IBM, Apple Computer, and Microsoft, to develop industry standards.

Two critical steps must be undertaken before the CATV industry can become a major player in the telecommunications industry, providing multimedia and interactive information services, access services, entertainment, and personal communication services (PCS). First, infrastructure improvements are needed to deploy fiber farther into the service area. Second, the CATV industry must develop more sophisticated support systems. The support systems must provide improved operations and provisioning capabilities, handle billing, and enable network monitoring.

Cable passes approximately 90 percent of the homes in the United States. Penetration is around 65 percent and is expected to reach 78 percent by the year 2000.

In enacting the Cable Act of 1984, Congress for the first time treated cable television as a separate and distinct medium. Recognizing federal, state, and local interest in regulating cable television, Congress prescribed uniform rules for those aspects of the cable industry requiring federal attention while preserving substantial regulatory authority for state and local governments.

The Cable Act of 1984 granted state and local authorities the power to regulate rates for provision of basic cable service where effective competition was absent. It was the task of the FCC, however, to promulgate regulation necessary for determining when effective competition was present and to establish the standards for rate regulation. In Texas, PURA excludes basic cable service from the regulatory authority of the Commission, effectively deferring regulation to local governing bodies.

The recent passage of the Cable Television Consumer Protection and Competition Act of 1992 promises increased regulatory oversight of cable systems. Under the new Act, the FCC is required to adopt rules and procedures for establishing reasonable rates for basic cable service as well as criteria for determining whether a cable television operator's rates are unreasonable. Furthermore, the Act requires the FCC to develop standards and regulation for enforcing the Act's requirements.

For a cable company to offer local exchange telephone service in a serving area, it would be required to obtain a certificate of convenience and necessity (CCN) from the Commission. To date, no such applications have been made in Texas. A cable company may, without obtaining a CCN, offer services that are not local exchange services under the Commission's rule (see page 9).

## Access to Long-Distance Markets

There are three essential components of most long-distance calls. First, the call must be transmitted from the originating customer to the long-distance carrier's switch (originating access). Next, the call must be transmitted from the long-distance carrier's

switch in the originating customer's service area to a switch in the service area of the called party. Finally, the call must be transmitted from the long-distance carrier's switch to the called party (terminating access). Historically, originating access and terminating access have been provided by the LECs serving the originating customer and the called party.

LECs provide two types of access services: (1) switched access services and (2) special access services. With switched access, long-distance calls are transmitted over some of the same facilities that are used for local calling and are "switched" to the IXC at the LEC central office. With special access, a dedicated transmission path is provided between the IXC's facilities and the end user's premises.

Recently, CAPs have entered the access market in Texas' largest metropolitan areas, Houston and Dallas. Typically, CAPs are facilities-based service providers that construct and operate their own local fiber optic ring networks. Their customers tend to be telecommunications-dependent businesses and IXCs who often use CAPs to achieve system redundancy and reliability. Businesses that cannot afford telecommunications service interruptions often purchase service from both the LEC and a CAP to achieve what is often referred to as operational security. The concept is that taking service from two independent local networks provides a level of reliability that cannot be achieved by a single network. The need for operational security was highlighted by disasters such as the Hinsdale, Illinois central office fire and large-scale network failures in 1991.

In addition, businesses utilize the services of CAPs for strategic security purposes. The issue of strategic security arises when a LEC comes into direct competition with its largest customers. For example, a LEC may enter a market such as financial or information services, placing itself in competition with some of its customers who also provide these services. As competitors, these customers may be reluctant to rely solely on the LEC for critical telecommunications services. These customers may prefer to obtain service from another carrier. Just as operational security can be provided only by a carrier other than the LEC, strategic security can be provided only by a carrier that is not in competition with its customers.

Several CAPs currently operate in Texas. These include Digital Direct of Dallas, Metropolitan Fiber Systems of Dallas and Houston, Phonoscope of Houston, Teleport Communications of Dallas and Houston, and Western Union ATS.

CAPs compete with LECs primarily in the provision of dedicated or special access services and private line services. If a customer's usage is sufficiently large, the customer may purchase dedicated circuits to an IXC from a LEC or a CAP, thus reducing the switched access revenue of the LEC. For a discussion of private line services, see page 24.

Based on estimates of revenue by LATA, SWB's special access and private line revenue in the Dallas and Houston LATAs were approximately $191 million in 1991. Based on similar estimates, SWB's switched access revenue in the Dallas and Houston LATAs in 1991 were approximately $505 million. For 1991, the Texas CAP industry reported revenue of $2.9 million. Texas CAP revenue for the first half of 1992 was reported to be $2.6 million. These revenue figures for CAPs and for SWB include both interstate and intrastate services.

In 1990 SWB filed a petition, Docket No. 9796, requesting that the Commission enter a cease-and-desist order against several CAPs. The petition was based on SWB's interpretation of the Commission's definition of local exchange service, a definition central to the identification of a dominant carrier under Texas law. A dominant carrier is required to obtain a CCN, so SWB argued that CAPs must receive a CCN prior to offering local exchange service in Texas.

The Commission decided that it should not move forward in addressing SWB's petition for a cease-and-desist order based on a fifteen-year-old definition of local exchange service. Therefore, the Commission initiated a rulemaking to revise the definition of local exchange service. This rulemaking is discussed in greater detail at page 9. Additionally, the Commission initiated a rulemaking to consider the extent to which the presence of CAPs in the local exchange market necessitated additional regulatory flexibility for SWB and other LECs. (See page 12.)

Many parties allege that the issues raised by SWB in its request for a cease-and-desist order were addressed in the Commission's rulemaking to define local exchange service, and have requested the docket be dismissed. SWB opposes dismissal.

The Commission is also considering a complaint filed by MFS against SWB, Docket No. 9640, in which MFS asks for economically priced access in order to interconnect its network with that of SWB. The FCC recently expanded interconnection opportunities for companies like MFS (see page 4.)

According to responses to the LEC Data Report, the chief competitors to LECs in the access market are 34 microwave network providers, CAPs, and IXCs. Several LECs responded to the LEC Data Report with complaints about revenue losses incurred as a result of bypass. Facility bypass occurs when a customer is directly connected to an IXC's POP with facilities provided by a competitor of the LEC. If the LEC's special access lines are used as the direct link to the POP, that is referred to as service bypass. Comanche County Co-op reported $33,000 in lost annual revenue due to facility bypass; GTE alleges a $30 million facility bypass loss and between $150,000 and $800,000 lost to service bypass. SWB reported an aggregate annual loss of $22.3

million from facility bypass, and a $98.7 million revenue loss from service bypass. Muenster claimed a $100,000 annual revenue loss from facility bypass via private line.

## Wireless Communications

Increasingly, Texans are availing themselves of opportunities in the wireless communications area to supplement their existing communications services. Such wireless services include paging services, mobile telephone services, cellular radio-telephone services, specialized mobile radio (SMR) services, PCS, and other private and public radio-based services. These services, for the most part, are unregulated by the Commission.

The FCC has left intrastate regulation of these services to the States. PURA prohibits the Commission from exercising jurisdiction over most wireless telecommunications services, except for certain types of radio-telephone services provided by LECs, such as basic exchange telephone radio service (BETRS) and paging services.

### Paging Services

Paging services are available in almost all cities and towns in Texas. Competition for paging services in Texas is vigorous. There are as few as five to more than 60 alternative providers of paging services virtually everywhere in Texas.

People use paging services to communicate by way of the public switched telephone network to terminal equipment. The terminal equipment, sometimes called a "beeper," may be provided by the paging service provider or purchased from a third-party vendor. Paging terminal capabilities are increasingly found imbedded in other devices, such as tetherless computers, telephones, and watches.

Paging services include tone-only, tone-and-voice, alphanumerics, voice messaging, and data services. Tone-only service provides the caller the ability to cause a tone or beep to be heard by the called party. Some terminals will vibrate rather than beep. Tone-and-voice service permits the caller to leave a short message. Alphanumeric, voice messaging, and data services are much more sophisticated in the services offered and the terminal equipment required. Some of the latest features may include two-way communications, message-storage capabilities (at the service provider or the terminal equipment), and larger displays of information at the terminal equipment.

Paging services provided by wireline telephone companies are regulated by the Commission; the rates and regulations applicable to these services are tariffed.

Wireline telephone companies that provide paging service face competition from unregulated paging service providers.

Significant revenue losses were claimed by LECs in the LEC Data Report to competition in the pager market with a range from a few thousand dollars in a very small company to almost $1 million dollars in a mid-sized LEC. Losses were not quantified by the largest LECs, but were said to be attributed to the increasing sophistication of competitive offerings, intraLATA calling scope restrictions and their high-cost provider status.

## Mobile Telephone Services

Mobile Telephone Service is provided by 13 wireline telephone companies (LECs) in Texas. It is a broadcast-type of radio-telephone service provided to vehicles from a central transmitter within range of a moving vehicle. The transmitter is connected to the public switched telephone network, thereby permitting calls to and from other telephones. The radio sets, which are installed in vehicles, are older equipment and use high transmitter power. The number of users that a Mobile Telephone Service system can support is limited. This technology is being displaced by the more efficient cellular radio-telephone technology. Several LECs have applied for withdrawal of this service due to the obsolescence of equipment used to provide the service and the migration of customers to other radio-telephone services.

LECs state that the exodus of mobile radio-telephone customers to cellular telecommunications services continues unabated, and customer base decreases of up to 60 percent have been reported. Revenue loss claims from the low thousands for small LECs to over $1.6 million for a mid-sized company have been submitted in the LEC Data Reports. The larger companies gave no quantification of foregone revenue, but alleged continuing losses due to cellular growth and the 23 new cellular Rural Service Areas (RSAs) granted in 1991, which allow statewide service for their competitors.

## Cellular Radio-telephone Service

Cellular Radio-telephone Service (cellular service) is now provided throughout Texas, which is divided into 47 Cellular Geographic Service Areas (CGSAs). The CGSAs comprise 26 Metropolitan Statistical Areas and 21 RSAs. The last CGSA to have cellular service commercially available was Texas RSA 13, comprising Reeves, Pecos and Terrell counties, in which a carrier was licensed in July 1991. Dallas was the first city in Texas to have cellular service.

In general, two FCC-licensed carriers provide cellular service in each CGSA; typically, one is an affiliate of the wireline telephone company, while the other is a non-wireline company. The first cellular systems began commercial operation in Texas in 1984. The cellular industry gained its 10 millionth subscriber nationwide in November 1992.

A cellular system in each CGSA consists of a Mobile Telephone Switching Office (MTSO), numerous cell sites, connections between cell sites and the MTSO, and an interconnection to the public switched telephone network. The CGSA is latticed with cell sites to permit frequency reuse and low power requirements for the cellular telephones. The cellular system infrastructure represents a large investment: a single cell site can cost $500,000 to $750,000. Each licensed carrier builds its own system.

Many cellular carriers or their agents provide the cellular telephone, often bundled with the service as a package deal. Cellular service may also be obtained through a reseller, who buys blocks of cellular telephone numbers and air time at bulk rates from a cellular carrier.

Many cellular service providers can deliver a wide range of services in addition to mobile voice telephone service, including voice messaging, data services, facsimile transmissions, certain custom calling services, and roaming capabilities.

Controversy has arisen regarding the competitiveness of the cellular industry. Many of the services and prices of the two providers are similar within most CGSAs, although significant differences in price do occur in some markets as a result of differences between carriers in geographic coverage and increasingly as a result of the introduction of new rate plans. A recent United States Government Accounting Office (GAO) study entitled *Telecommunications Competition in the Cellular Telephone Service Industry* recommended, among other things, that the FCC evaluate the status and development of competition in the industry. The study recommended that the FCC obtain revenue, cost and other financial data in the 30 largest markets (including Dallas-Fort Worth and Houston) as a first step in determining whether further action may be needed to protect the public interest.

FCC officials disagreed with a GAO recommendation that it assess the competitiveness of the cellular industry, citing limited resources and the need for speedy introduction of PCS.

The rates of cellular carriers are not regulated by the Commission, nor is a cellular carrier required to obtain a certificate or to register as a telecommunications utility in Texas. However, the Commission does regulate the tariffed interconnection arrangements of the wireline telephone companies. Tariffed rates for interconnection arrangements have been decreasing in Texas over the last several years.

According to the September 24, 1992 issue of the *State Telephone Regulation Report*, 24 states require wholesale cellular providers to obtain a certificate to provide service within the state; 16 of these 24 states require cellular carriers to file tariffs. To obtain a certificate, cellular providers are usually required to complete a registration process only. The California Public Utility Commission recently approved switching capability for cellular resellers. Motions for rehearing and potential appeals are still pending. Resellers traditionally have not built, operated, or maintained facilities.

LECs allege that cellular services provide a competitive threat to existing local exchange and intraLATA toll services. (Since LEC affiliates provide cellular service in many CGSAs, it may be an affiliate company posing this perceived threat to the LEC.)

## Specialized Mobile Radio Service (SMR)

Traditional SMR service may be thought of as a limited alternative to cellular service. SMR radio-telephone broadcast-type radio service is similar in theory to Mobile Telephone Service. An SMR operator owns a radio system that includes one or more base station transmitters, one or more antennas, and other radio equipment that a third party may use, for a fee. SMR service can be used for dispatch (such as taxicab dispatch) or interconnection service to the public switched telephone network.

Two important features can make SMR service competitive with cellular-like telephone service. One feature is multi-channel trunked systems, which permit a greater number of users to connect to the system than conventional SMR systems. The second feature is the use of digital technology in SMR systems. Digital technology permits increased service coverage, more efficient use of radio frequencies, and clearer-quality calls. In addition, digital technology facilitates the provision of many services to the mobile customer, including paging ability, voice messaging, data services, and facsimile transmission.

SMR service is an economic alternative to cellular service for two main reasons. The infrastructure for SMR systems requires lower start-up costs than cellular systems. Also, SMR systems experience substantially lower operating costs. For these reasons, SMR system operators can offer dramatically lower airtime rates. The major disadvantages to SMR service are that (1) its coverage is often smaller than cellular coverage and (2) SMR service providers do not typically having roaming capabilities.

However, FleetCall and several other large SMR carriers are developing enhanced SMR (ESMR) systems that promise to overcome the coverage disadvantages of traditional SMR systems, and may even provide extended roaming capabilities as well. The main differentiating features of ESMR systems (as contrasted with traditional SMR systems) are the use of low-powered, low elevation transmitters and

the reuse of frequencies over a wide area, similar to the way cellular systems reuse frequencies. ESMR systems, which are currently being constructed in Northern and Southern California, and which FleetCall proposes to build in Houston and Dallas, would be regional in scope and would have traffic capacities comparable to existing analog cellular systems. ESMR operators are also negotiating to establish nationwide roaming capabilities equivalent to cellular roaming.

SMR operators are exempted from state regulation by federal law. SMR operators obtain interconnection arrangements with LECs similar to those of cellular carriers.

No LECs specifically addressed SMR service in the LEC Data Reports as a competitive concern.

## Personal Communications Services (PCS)

The PCS concept calls for communicating in a new way. Instead of calling a physical location (like an office or a home), calls will be made to a person. The PCS system may "know" where the customer is, automatically forwarding calls to his car, office, home, or handset. The system could be sensitive to economic considerations. For example, when the customer is at home or at work, the system could know to reach him by way of the wireline telephone, rather than using more expensive airtime.

A broad view of the PCS concept calls for the customer to be issued a telephone number for life, which number will never have to be changed. All of the features (e.g. call waiting, special number screening, primary long-distance company, etc.) will follow the customer, no matter what medium is used.

Personal communications services are subject to much speculation. The FCC and the World Administrative Radio Conference have set aside frequencies for PCS. PCS will use a new type of radio-telephone system that is expected to revolutionize telecommunications. The PCS system will use inexpensive, light, low-power handsets. Several technologies are vying for acceptance: (1) microcellular technology (similar to cellular technology but using far smaller cells); (2) CT2 or Telepoint (similar to home cordless telephone systems); and (3) low earth orbit satellites (LEOS), which circle the earth providing communications anywhere.

The FCC plans to award licenses for PCS in 1993. There are numerous PCS trials being conducted in Texas and across the rest of the country. The list of contenders for PCS licenses includes Motorola, Northern Telecom, Southwestern Bell Personal Communications, DSC Communications Corp., cellular companies, cable companies, and LECs. One major issue facing the FCC is how to subdivide the

country into service areas. The outcome may further confuse the telecommunications (LATA-Area Code-CGSA) map.

Current common carrier contenders (e.g., LECs, cable companies, and cellular companies) for PCS licenses will probably be awarded common carrier PCS licenses by the FCC. Other contenders for PCS licenses may be granted either private carrier or common carrier licenses. Under current Texas law, the Commission would have no regulatory authority for either private or common carrier PCS licensees. Federal law prohibits state regulation of private carriers.

In response to the LEC Data Report, three LECs mentioned PCS as a potential source of competition for local exchange service. Although one LEC reported an actual PCS trial in its service territory, it did not cite PCS as a potential source of competition.

## Enhanced Services and Open Network Architecture (ONA)

In 1985, the FCC initiated a rulemaking, Computer Inquiry III (CI-3), to re-examine its policies regarding the provision of enhanced services by AT&T and the BOCs. The FCC had previously determined that the BOCs could provide enhanced services (e.g., voice messaging service, E-Mail) to the general public only through a structurally separate subsidiary. In an earlier proceeding, the FCC defined basic services to be those that are limited to the common carrier offering of transmission capacity for the movement of information. Generally, enhanced services are all other services.

The policy objective of CI-3 was to promote the widespread deployment of enhanced services to the mass market at equitable prices. To attain this objective, the FCC removed the structural separations requirements from the BOCs and AT&T, allowing them to integrate the provision of enhanced services and basic services. When the FCC removed the structural separation requirement to allow the integrated provision of basic and enhanced services by the BOCs and AT&T, it enacted non-structural safeguards to protect against anti-competitive behavior. These safeguards consist primarily of accounting and affiliate transaction rules, ONA plans, and discrimination safeguards.

The FCC required AT&T and the BOCs to file their initial ONA plans on February 1, 1988. The center of the plan is the principle that the BOCs' basic network services be unbundled into "building blocks" that can be purchased by any firm.

On December 22, 1988, the FCC approved the plans in substantial part but flagged a number of areas for revisions. Because the ONA filings were unfinished, the

FCC required that AT&T and the BOCs provide "comparably efficient interconnection" (CEI) until the completion of ONA, which would achieve the same goal. Through CEI, the BOCs and AT&T must provide competitors with access to basic services comparable in quality to access they use themselves in supplying enhanced services of their own. The FCC believed at the time it made this policy that competitors would pay for only those services used in providing enhanced services.

It should be noted that under the ONA plan, the BOCs are permitted to offer enhanced services on an integrated basis when they demonstrate that they are following the safeguards described above. However, the FCC does not require the BOCs to provide enhanced services on an integrated basis. The BOCs may offer enhanced services on a structurally separate basis, should they choose not to comply with non-structural safeguards.

In June of 1990, the 9th Circuit Court of Appeals in San Francisco overturned the FCC's CI-3 order and remanded it to the FCC. The Court specifically ordered the FCC to re-examine its decision to allow the BOCs to offer enhanced services on an integrated basis with their regulated services and asked why the FCC suddenly departed from its separate subsidiary requirement. The Court also reprimanded the FCC for preempting state regulatory agencies' jurisdiction with regard to ONA and required that it use a more narrow interpretation of the Communications Act of 1934 for pre-emption of state jurisdictions.

On December 20, 1991 the FCC released its Order and Report on this matter and readopted its previous finding that allowed the BOCs to provide enhanced services on an integrated basis with monopoly services, if certain safeguards are followed. The FCC strengthened its safeguards somewhat and also more narrowly defined its preemption authority over state jurisdiction. This Order and Report has again been appealed to the 9th Circuit Court of Appeals in San Francisco. Action on the appeal is pending.

In Texas, SWB has filed its ONA tariffs with the Commission. The application with the greatest competitive impact affects SWB's Access Tariff. This application has been abated pending resolution of other proceedings relating to the Access tariff that were in progress when SWB filed its ONA tariff. Processing of this application will begin in 1993.

The FCC recognized that ONA is evolving and will require ongoing monitoring and re-examination of issues. The FCC reserved the right to reexamine all aspects of ONA on an ongoing basis and committed itself to conduct a full review of the ONA concept three years after implementation (i.e., in 1995).

In its LEC Data Report, SWB responded that it does not provide voice mail services, but jointly markets "Call Notes," the voice mail product of its affiliate, SMSi, according to FCC guidelines (see discussion of Docket No. 11487 at page 18).

LECs are said to compete in this market with CPE (answering machines) providers, commercial and residential telephone answering services, paging companies, and with other providers of voice mail products. Of those reporting revenue losses in response to the LEC Data Report, a mid-sized LEC claimed a decrease of over a half-million dollars.

# III. COMPETITION IN INTRALATA LONG-DISTANCE TELECOMMUNICATIONS

## BACKGROUND

The MFJ, which called for the breakup of the Bell System on January 1, 1984, is discussed in more detail at page 47. This court order required AT&T to divest itself of the local exchange companies, now known as the BOCs. SWB is the BOC that provides service in parts of Texas. AT&T continues to operate as an IXC in Texas under the name AT&T Communications of the Southwest, Inc.

The MFJ established geographic areas called local access and transport areas (LATAs), which delineated the areas within which the BOCs could serve. A separate consent decree, in connection with GTE's 1983 acquisition of the predecessor company to Sprint Communications, called for the creation of geographic areas called special marketing areas (SMAs) in the GTE service area. SMAs serve the same purpose as LATAs. For convenience, in this report LATA is used as a generic term referring to either a LATA or an SMA. (See Exhibit 1 for a map of Texas LATAs and SMAs.)

### Providers of IntraLATA Long-Distance Service

Intrastate long-distance service may be provided either interLATA or intraLATA. SWB and GTE are prohibited by their respective consent decrees from providing interLATA service. (This prohibition applies also to interstate service.) These LECs may provide long-distance service only within a LATA. Independent LECs have as a practical matter limited their long-distance services to intraLATA services. However, some independent LECs have established subsidiaries to provide interLATA (including interstate) long-distance service.

IntraLATA long-distance service may be provided by a LEC, including SWB or GTE, or by an IXC. However, the IXCs' participation in the intraLATA market is limited because much of the intraLATA traffic is "defaulted" to the LEC. This default process which reserves 1+ and 0+ dialed intraLATA calls for the LEC is discussed in more detail at page 41.

The rates charged by LECs for intraLATA long-distance service are regulated by the Commission. AT&T's rates for intrastate long-distance service are regulated by the Commission. (See discussion at pages 49 and 52.) The Commission does not regulate the rates of other IXCs, but state law requires all IXCs operating in Texas to

register with the Commission and to keep their current rates on file. IXCs are further required by PURA to maintain statewide average rates.

# COMMISSION ACTIONS

## Toll Pooling

All local exchange company revenue associated with intraLATA toll services was, until recently, contributed to a statewide pool. (The pooled services included message telecommunications service (MTS), Wide Area Telecommunications Service (WATS), 800, private line and directory assistance.) The Commission created the intraLATA toll pool in 1984 to encourage statewide average long-distance rates so that, for example, a long-distance call from Austin to Georgetown would cost the same as a call from El Paso to Fabens. The Commission's policy supporting statewide average toll rates was established by the legislature in Section 93 of PURA, which states:

> Local exchange companies' rates for interexchange telecommunications services must be statewide average rates unless the commission on application and hearing orders otherwise.

For many years SWB was a net contributor to the toll pool. Nearly all independent local exchange companies received net distributions from the toll pool based upon a formula involving revenue, expenses, taxes and investments. Over time, pooled revenue grew to more than $1 billion annually. In 1992 the Commission approved a plan to restructure the intraLATA toll pool.

Pursuant to the toll pool restructure plan, a half-dozen local exchange companies withdrew from the toll pool. During a transition period spanning several years, SWB will make payments to certain local exchange companies that no longer receive distributions from the toll pool. Also, SWB will provide a 12 percent return on toll pool contributions through 1996. Finally, as part of the toll pool restructure, local exchange companies will begin, in 1994, charging each other for access services.

## IntraLATA Wide Area Telecommunications Service (WATS) and 800 Service

In Texas all 1+ intraLATA WATS and MTS traffic is reserved to the LEC. Although intraLATA competition is permitted for WATS service, a customer must access the IXC by dialing an access code such as 10XXX, rather than 1+, in order to ensure that the call will be carried and billed by the IXC and not the LEC.

With 800 service, the customer receiving the call pays the telephone bill, but the routing of the call must begin where the call originates. LECs must determine which calls should be sent to which carriers. Presently, that information is coded in the 800 number itself. The first three digits after the 800 prefix are assigned to specific carriers. The result of this identification method is that if a customer wants to change

its carrier it must also change its 800 number. Eight-hundred numbers are not currently "portable" from one carrier to another.

Completion of an 800 call requires access to a database that maps 800 numbers into POTS numbers. At divestiture in 1984, the 800 database was designated an AT&T asset. In addition, other IXCs have developed 800 databases. Without their own database, LECs were unable to route 800 calls without the help of an IXC, typically AT&T. IntraLATA 800 calls are handled in one of two ways. Under the joint-provided option, the LEC carries and bills all intraLATA 800 calls, but must use the IXC database to determine the jurisdiction and routing of the call. Under the non-joint provided option, an IXC carries intraLATA 800 traffic but is required to pay the LEC a special revenue replacement rate (compensation rate) in lieu of originating access charges for its carriage of intraLATA 800 traffic. The compensation rate was designed to give the LEC approximately the same revenue streams that would have been achieved had the LEC carried and billed the intraLATA portion of the 800 service traffic themselves.

In March 1991 SWB applied to introduce a service called Maximizer 800 Service (Docket No. 10131, *Application of SWB to Revise the WATS Tariff to Introduce Maximizer 800 Service Common Line 800 Service*). Maximizer 800 is an intraLATA-only 800 service that terminates over a customer's local exchange line. The service marked both SWB's independence in the intraLATA 800 market and its first use of a LEC 800 database.

With the introduction of Maximizer 800 Service and a LEC 800 database, it appeared that the compensation rate was no longer justified: LECs could now effectively compete with the IXCs for intraLATA 800 traffic. The parties to Docket No. 10131 reached a unanimous agreement to approve SWB's application to introduce Maximizer 800 service and found it reasonable and in the public interest to reduce and ultimately eliminate the compensation rate by January of 1994. The Commission issued its final order in this docket, approving the stipulation on December 5, 1991.

The FCC has issued orders to require full 800 number portability by May 1993. To comply with this order, LECs have created new databases, which will be consulted each time an 800 number is called to determine which IXC is to carry the 800 call or, if a LEC is to carry the 800 call, the appropriate routing for the call. When this database is available, competition among IXCs for intrastate (both intraLATA and interLATA) and interstate 800 service should intensify.

## IntraLATA Toll Service

On April 30, 1992 the Commission approved for all local telephone companies a statewide offering of Optional Calling Plans that provide subscribers with discounts off of intraLATA toll calls (Docket No. 10645). Residential subscribers are offered two different plans:

1) For a $3.00 monthly fee a subscriber may receive a 15 percent discount off of all direct-dialed long-distance calls carried by the local telephone company.
2) A subscriber may purchase one hour of long-distance calling anywhere within the LATA for a monthly fee of $10.80. This fee applies on all calls during all hours of the day. Additional minutes, after the first hour, are $.1667 per minute or $10.00 per hour.

Business subscribers are offered three discount plans:

1) For a $3.00 monthly fee a subscriber may receive a 10 percent discount off of all direct-dialed long-distance calls carried by the local telephone company.
2) For an $8.00 monthly fee a subscriber may receive a 15 percent discount off of all direct-dialed long-distance calls carried by the local telephone company.
3) For a $20.00 monthly fee a subscriber may receive a 20 percent discount off all direct-dialed long-distance calls carried by the local telephone company.

# SCOPE OF COMPETITION

## Number of Competitors

IntraLATA toll, WATS and 800 services are provided by LECs, AT&T and a number of nondominant IXCs.* A discussion of IXCs operating in Texas may be found at page 55. Nondominant carriers are required by law to register with the Commission and to keep their current rates on file. The Commission maintains a list of registered carriers, along with public files containing their current rates and registration information.

## IntraLATA Toll Competition

When a customer dials a 1+ call to a destination in another LATA in Texas (an interLATA call), the call is carried by that customer's designated long-distance company. However, when that customer makes a long-distance intraLATA call--for instance, Austin to Dripping Springs--a 1+ call "defaults" to the LEC. In equal access areas, customers can have an intraLATA call completed by their IXC by using their IXC's "10XXX" code. Thus, although subscribers may access their interexchange long-distance carrier via 10XXX dialing for intraLATA calls, local telephone companies still enjoy the advantage of 1+ dialing for all intraLATA calls. The same situation exists with intraLATA WATS traffic.

Some customers avoid the intraLATA 1+ default to the LEC by using a redialer, a device that automatically dials the access code for the customer's IXC. This practice enables the person placing a call to dial 1+, yet the equipment dials an access code to route the call to an IXC instead of the LEC. This practice is often used by customers having many telephones accessible to the public, such as hotels.

In non-equal access areas an IXC other than AT&T (other common carrier, or OCC) may provide intraLATA services along with interLATA long-distance for MTS, WATS and 800 calls. Customers must dial up to 23 digits to complete a call using these IXCs, however. Because of the type of access AT&T uses, it handles only limited amounts of intraLATA traffic in non-equal access areas.

The magnitude of LEC revenue from intraLATA toll service is illustrated in Exhibit 3. The Commission staff is unable to report LECs' market share for

*In this report, the long-distance carriers other than AT&T are often referred to as other common carriers (OCCs). The term IXC refers to any long-distance company, including AT&T.

intraLATA toll because AT&T and many other IXCs do not track their revenue separately for intraLATA and interLATA services.

## IntraLATA Wide Area Telecommunications Service (WATS) and 800 Service

In response to the LEC Data Report, only one LEC, SWB, addressed the issue of competition for intraLATA WATS and 800 service. SWB characterized its market share as "plummeting," with an 80 percent loss in WATS revenue and an 82 percent loss of 800 service revenue since 1988. However, these losses may have been offset to some extent by increased access revenue resulting from increased demand for 800 service in recent years. IXCs pay access charges to LECs for much of the 800 service they provide, and the market has seen the introduction of a number of competitive 800 services by IXCs.

## Operator Services

Operator services include the handling of collect calls, person-to-person calls, calls charged to a calling card, and calls billed to a third number. OSPs are carriers that provide operator services using either live or automated operator functions. There are different types of OSPs. Local exchange carriers serve as OSPs, even though they are more commonly referred to as LECs. Many IXCs offer operator services in addition to other telecommunications services and hence are OSPs, even though they are more commonly referred to as IXCs. Those IXCs that limit their services to operator-assisted calls only are also OSPs, and are commonly referred to as OSPs rather than IXCs. Such OSPs typically market their services to pay telephone providers, hotels, motels, and hospitals.

As a rule, intraLATA operator service calls are "defaulted" to the LEC. However, callers may dial around the LEC by dialing an access code at the beginning of the call, such as 10XXX, 950-XXXX, or 1-800-NXX-XXXX. Redialers are often installed in the telephone equipment at pay telephones, hotels, and motels to dial around the LEC operator. When such a device is installed, a call dialed without an access code will not be defaulted to the LEC. Instead, the device dials the access code programmed into the equipment, even though the caller dialed no access code.

In its response to the LEC Data Report, SWB claimed a loss of $1.04 million in operator services revenue since 1989. The company also cited a $4.5 million loss in directory assistance revenue. SWB attributed these revenue decreases to its inability to offer interLATA toll service and call aggregator "tactics."

# IV. COMPETITION IN STATEWIDE LONG-DISTANCE COMMUNICATIONS

## BACKGROUND

Twenty-five years ago, most local and long-distance telephone services, as well as the equipment used to provide them, came from one telephone company which had been in business for nearly a century. Now Texas businesses and households have come to take for granted the availability of numerous providers of both equipment and long-distance service. The competitive environment that now characterizes long-distance telecommunications markets was made possible by a series of decisions by the Federal Government.

### Federal Regulatory Changes

In 1959, the FCC concluded in its "Above 890" decision that radio frequencies above 890 megacycles would not be reserved for common carriers alone, and that customers or private carriers could establish their own networks as long as they met the necessary technical criteria. This enabled customers of the telephone company to provide themselves with services formerly provided only by AT&T.

In 1969, after six years of proceedings, the FCC granted MCI's request to be authorized to provide private line service between Chicago and St. Louis. Two years later, the FCC's Specialized Common Carrier decision opened the provision of such private line services to other carriers as well. During the 1970s, MCI expanded its offerings, and initiated a voice telecommunications service called Execunet, which used PBXs to gather traffic that was transmitted over its private lines. Although the FCC determined in 1976 that Execunet was a type of switched voice or message service that MCI was not authorized to provide, the U.S. Court of Appeals overturned that decision. After the court's decision, the long-distance telecommunications market was no longer served by a single provider.

The structure of the telecommunications industry was also changed by the MFJ, which concluded a 35-year federal antitrust suit against AT&T. The divestiture ordered by the MFJ ended AT&T's common ownership of equipment manufacturing interests, local exchange companies, and long-distance service. On January 1, 1984, AT&T divested itself of the local exchange companies, now known as the BOCs. SWB is the BOC that provides service in parts of Texas. AT&T continues to operate as an IXC in Texas under the name AT&T Communications of the Southwest, Inc.

Under the MFJ, the BOCs were directed to convert their end offices to provide equal access -- that is, access to their local networks equal to AT&T's access in type, quality and price for all IXCs. The MFJ established geographic areas called LATAs, which delineated the areas within which the BOCs could serve.

Under a separate consent decree, in connection with GTE's 1983 acquisition of the predecessor company to Sprint Communications, GTE was required to offer equal access in many of its end offices. This consent decree called for the creation of geographic areas called SMAs in the GTE service area. SMAs serve the same purpose as LATAs. For convenience, in this report LATA is used as a generic term referring to either a LATA or an SMA. (See Exhibit 1 for a map of Texas LATAs and SMAs.) The FCC also established guidelines for the provision of equal access by other independent LECs. (The "independents" consist of all LECs except the BOCs.) The current status of equal access is discussed at page 59.

## Providers of Statewide Long-Distance Service

Long-distance service may be provided interstate (across state lines) or intrastate (when a message originates in one exchange and terminates in another exchange within Texas). Interstate long-distance service is provided by IXCs, including AT&T, MCI, Sprint and others. The term IXC refers to a carrier providing any means of transporting telecommunications messages between local exchanges.

AT&T's rates for interstate long-distance service are subject to price cap regulation by the FCC. The FCC does not regulate the rates of other IXCs. In the past, the FCC has not required an OCC (IXC other than AT&T) to file tariffs for all its services. The order that established this policy, however, was vacated in November 1992 by a federal appeals court, which remanded the case to the FCC.

Intrastate long-distance service may be provided either interLATA or intraLATA. AT&T and the other IXCs participate in a statewide long-distance market that includes the provision of both intraLATA (although on a limited basis) and interLATA services. AT&T's rates for intrastate long-distance service are regulated by the Commission. The Commission does not regulate the rates of other IXCs, but state law requires all IXCs operating in Texas to register with the Commission and to keep their current rates on file. IXCs are further required by PURA to maintain statewide average rates.

The list of IXCs providing service in Texas includes 22 facilities-based carriers, IXCs that own or lease transmission facilities.

## Developments at the State Level

Until 1984 AT&T's subsidiary SWB provided local and long-distance service within Texas. When the Texas Commission was created in 1975, it regulated both types of service provided by SWB. At that time PURA provided for no Commission jurisdiction over OCCs, which had just begun to appear in the market.

Amendments to PURA in 1983 set forth definitions of dominant and nondominant carriers. The Commission was given full jurisdiction, including authority to set rates, over any dominant carrier of communications services. Only limited jurisdiction was provided for nondominant carriers. In 1987 the Seventieth Legislature adopted amendments to PURA that directed the Commission to determine if any IXC was dominant as to any service market (Section 100(b)). The Commission defined four service markets in that proceeding MTS, or basic long-distance service; 800 service; operator services; and all other services) and determined in December 1988 that AT&T was dominant in all four service markets.

The Commission's Substantive Rules in effect at the time of the market dominance case (Substantive Rule 23.25) permitted flexible regulation for certain AT&T services. This rule was formulated to allow AT&T to address competition in the long-distance market while continuing to be regulated as the dominant IXC in the State of Texas. The rule has been amended twice to permit AT&T greater flexibility in pricing its services.

The original version of the rule, which took effect July 1, 1987, prescribed a range or band of rates for most of AT&T's services. This flexibility permitted AT&T to change some rates within a band, rather than having to charge the exact rate set by the Commission in a full rate proceeding. Rate banding was permitted for three services: MTS, WATS, and private line service. There was no rate band for 800 service or operator services.

Substantive Rule 23.25 was amended effective August 1989 to grant AT&T additional pricing flexibility for WATS and private line service. These changes permit AT&T to price these services as it wishes, so long as its rates yield revenue in excess of the access, billing and collection costs associated with provision of each service.

In March 1990, AT&T petitioned the Commission to amend Substantive Rule 23.25 in order to grant AT&T additional flexibility in pricing its MTS, 800 and operator services. In addition, the company sought the ability to introduce optional calling plans, which are specially packaged MTS services, on the same basis as OCCs. AT&T's petition also sought authority to introduce temporary promotional rates on five days' notice to the Commission. Optional calling plans and temporary promotional rates would have to be priced above the cost of access, billing and collection.

In November 1990, the Commission adopted amendments to Substantive Rule 23.25 which granted AT&T additional flexibility to respond to competition, although the company continues to be the dominant IXC. Thus the Commission retains jurisdiction over the pricing practices of AT&T. The major changes in the rule affect rates for MTS, 800 service, and operator services.

**a. MTS Rates.** The amendments adopted by the Commission capped MTS rates at the rates in effect on May 1, 1990. Before these amendments, AT&T had the flexibility to raise its rates one cent per minute for calls carried 82 miles or more. The minimum rates for MTS remain at their former levels, but in no event may a rate be lowered below 105 percent of AT&T's cost of access, billing and collection. Certain of AT&T's rates are already below these costs. The amendments do not lower these rates, but prevent them from falling further below cost.

The Commission granted AT&T's request to set its evening and night MTS rates separately from its day rates. Under the previous tariff, evening and night rates were expressed in terms of a percentage discount off day rates. Under the new version of Substantive Rule 23.25, evening and night rates are capped at their current levels, as are day rates.

**b. Optional Calling Plans.** The Commission did not adopt a provision for optional calling plans. The optional calling plans which the company now offers were introduced under another section of the rule providing for new services. They may be changed pursuant to existing flexibility for pricing MTS.

**c. Temporary Promotional Rates.** AT&T may now offer temporary promotional rates for MTS or operator services on five days' notice to the Commission. Such rates must be within the allowable range for the service to which they apply.

**d. 800 Service.** Under the previous version of Substantive Rule 23.25, AT&T had no flexibility in its pricing of 800 service. The amendments adopted by the Commission set a range of permissible rates for 800 service. Rates may not fall below 105 percent of the costs of access, billing and collection, nor may they exceed 140 percent of these costs.

The maximum rate applies only until the problem of 800 number portability (see discussion at pages 39) is resolved in Texas. When the BOCs have access to a database for translating 800 numbers, 800 service customers will be able to retain their 800 numbers when changing from one 800 carrier to another. After this database is approved for use in Texas, the ceiling on AT&T's 800 service rates will expire.

e. **Operator Services.** Under the previous version of the rule, AT&T had no flexibility in pricing its operator services. The amendments adopted provide for a range of rates for these services.

# COMMISSION ACTIONS

## Regulation of AT&T

In the last two years AT&T has filed approximately 80 applications, including applications for the introduction of new services, additional options for existing services, and repricing of services. The company has introduced a number of optional calling plans (OCPs) in the Texas intrastate market. Representative examples of these new calling plans are

- All-PRO WATS, which provides sub-minute pricing which is sensitive to time of day but not distance;
- Small Business Options, which has a postal-like rate structure (one rate applies to all calls);
- Optimum Service, which establishes peak and off-peak pricing; and
- AT&T Plan Q, which applies a discount to calls to the most frequently called area code.

Most of AT&T's OCPs are aimed at specific segments of the business long-distance market. New AT&T products aimed at the residential market include 800 Plan P "Personal" 800 service, Easy Reach 700 Service (a plan under which an individual is assigned a telephone number with a 700 area code that follows him wherever he goes), and a new half-hour option of Reach Out Texas (a block-of-time long-distance calling plan).

Basic long-distance rates have declined over the past two years as a result of Commission-mandated reductions to access charges paid by long-distance companies. According to Substantive Rule 23.25(d), AT&T must lower its rates to pass through these access charge reductions to its ratepayers.

## Access Services, Substantive Rule 23.23(d)

The access rule adopted by the Commission in 1992 provides a mechanism for reducing access charges across the state. Although the Commission does not set the rates of long-distance carriers other than AT&T, the Commission believes that reducing access charges will result in lower long-distance rates for consumers. The access rule contains numerous other provisions that will affect the level and vitality of competition in various markets in Texas. The following are examples of such provisions.

- A local exchange company must file a tariff with the Commission for any access service provided on a special assembly basis to more than

three customers or more than three locations. This provision will ensure that special assembly access services are offered to all access customers.

- The rule provides a phased-in uniform application of local switching rates to all access customers.
- The application of access rates for terminating Feature Group B is changed so that all access customers pay the same rate for this service as for terminating Feature Group D, a nearly identical service.
- Each local exchange company must provide on a biennial basis a ten-year forecast of equal access implementation. Equal access ensures that access customers have access to the local switched network and results in consumers having more long-distance choices. Currently, 59.5 percent of central offices in the state provide equal access. However, more than 92 percent of the access lines in the state are served from equal access end offices (see Exhibit 4). The areas that do not yet receive equal access are primarily rural.
- The access rule capped a two-year effort to require uniform application and interpretation of meet-point billing guidelines which affect transport service. Meet-point billing occurs when a transport service is provided jointly by two or more LECs to the point at which their territories converge, referred to as the meet point. The manner in which transport services are billed can affect the level of interexchange competition, particularly in rural areas where transport costs tend to be higher for IXCs.

The access rule also established a foundation for resolution of an issue that may be one of the most common anti-competitive tactics used by IXCs: jurisdictional misreporting. As in several other states, the Commission launched an effort to obtain accuracy in jurisdictional reporting by IXCs that report a percent interstate usage (PIU) to local exchange companies. The PIU determines how much of the IXC's access service is to be billed using interstate rates and how much is to be billed using intrastate rates. Because interstate access rates tend to be lower than intrastate rates, an overwhelming incentive exists for jurisdictional misreporting, resulting in less revenue being subject to the state's ratesetting jurisdiction. The rule seeks to address the problem of jurisdictional misreporting by requiring LECs to establish guidelines, including monitoring and auditing procedures, for self-reported PIUs. It is anticipated that such procedures will result in increased revenue flows to the state jurisdiction due to more accurate reporting.

The establishment of industry-wide guidelines for PIU reporting and monitoring is an issue in the pending case, *Application of Southwestern Bell Telephone Company to Revise Section 2 of its Intrastate Access Service Tariff*, Docket No. 10127.

For a discussion of the impact of the access rule on LECs and a background discussion of access, see pages 15 and 28.

## Dial-Around Compensation

On July 22, 1992 the Texas Payphone Association (TPA) petitioned the Commission to amend Substantive Rule 23.54 to require IXCs to compensate private pay telephone providers for access code calls. Such calls are initiated by dialing "950-XXXX," "1-800," or "10XXX" in order to dial around the private pay telephone provider's presubscribed IXC. Private pay telephone providers currently receive no compensation for intrastate access code calls.

TPA's petition followed Congress's passage of the Telephone Operator Consumer Services Improvement Act of 1990, which directed the FCC to "consider the need to prescribe compensation . . . for owners of competitive public pay telephones for calls routed to providers of operator services that are other than the presubscribed provider of operator services for such telephones." On August 9, 1991 the FCC released an order in CC Docket No. 91-35, *In the Matter of Policies and Rules Concerning Operator Service Access and Pay Telephone Compensation,* concluding that considerations of equity required dial-around compensation for interstate calls. The FCC decreed that competitive pay telephones include pay telephones not owned by a LEC or AT&T.

At its September 9, 1992 Final Order Meeting, the Commission voted to deny TPA's petition. Instead, the Commission voted to publish in the *Texas Register* ten questions concerning dial-around compensation. These questions addressed such issues as (1) whether requiring dial-around compensation is desirable; (2) whether the Commission has jurisdiction under PURA to compel nondominant IXCs to pay dial-around compensation to private pay telephone owners; (3) who specifically should receive dial-around compensation; and (4) the appropriate methodology to use in determining the amount of such compensation.

A number of parties filed comments responding to these questions on October 19, 1992. These comments are now being reviewed by the Commission staff.

# SCOPE OF COMPETITION

## Number of Nondominant Competitors

In July 1992 the Commission staff mailed a questionnaire to 268 nondominant carriers registered in Texas. After the mailing, 72 carriers were removed from the list because the mail was returned and the carrier could not be located, the company was not yet or no longer in business, or the company was not a nondominant carrier.

Fifty-three carriers failed to respond by December 31 to the staff's request; they are listed at Exhibit 5.

Responses from 143 carriers were received. They include:

- 21 facilities-based providers of interexchange service (IXCs that own or lease telecommunications transmission facilities)
- 112 resellers of interexchange service
- 6 STS providers
- 4 CAPs.

STS providers and CAPs are not considered IXCs, and their revenue and numbers of customers are not included in Exhibits 7 through 11. (Shared tenant services are discussed at page 26; CAPs are discussed at page 28.)

The table below shows, for each of the Commission's biennial reports to the Legislature, the maximum number of OCCs reporting revenue in any period.

| Report | Calendar Quarters (Yr./Qtr.) | Number of OCCs |
|---|---|---|
| 1989 | 1986/1 - 1988/3 | 69 |
| 1991 | 1988/4 - 1990/2 | 80 |
| 1993 | 1990/3 - 1992/2 | 142 |

Much of the recent increase is accounted for by a growing number of aggregators and switchless resellers.

Exhibit 6 shows the number of OCCs serving the customers of each Texas LEC. This exhibit is based on information reported by LECs.

## Market Share of AT&T

AT&T is the only IXC whose rates are regulated by the Commission. The Commission staff gathers and reports periodically information about AT&T's market share in order to monitor the degree of competition in Texas long-distance markets.

Data on market share are gathered and reported according to the four markets defined by the Commission in the interexchange market dominance proceeding (see page 49). The development of new products and changing relationships among AT&T, other facilities-based carriers and resellers may cause distortions in the data for a particular service. Therefore, the reader is urged to use caution in drawing inferences about AT&T's market share in a particular service market.

Many of AT&T's customers are not end users, but IXCs who resell the telecommunications services they purchase from AT&T to other resellers or to end users. While these resellers compete with AT&T to a certain extent for customers, they are themselves AT&T customers. Some of the revenue they receive from end users are paid to AT&T and other facilities-based carriers as the cost of resold telecommunications services.

Measuring market share in such a market, where some competitors are also customers of the largest providers, presents a problem of double-counting. For example, if revenue is used as the basis of market share, the analyst must account for the fact that the sales of resellers also generate revenue for facilities-based carriers. Minutes of use as a measure of market share presents the same problem: a minute of use sold to an end user by a reseller generates revenue for an underlying carrier.

Market share data is inherently sensitive to the response rate of nondominant IXCs. To the extent that IXCs fail to report data on their revenue and numbers of customers, the market share of AT&T, the dominant carrier, will be overstated. Furthermore, market share data will fluctuate from one reporting period to another as the response rate varies. If staff is increasingly successful over time in enforcing reporting requirements for nondominant carriers, their higher rate of response will make AT&T's market share appear to fall.

## Telecommunications Value Added

To avoid the problem of double-counting described above, the Commission staff applied the concept of value added to the intrastate long-distance telecommunications market. This concept was used to get a view of the size and growth of the market for interexchange services and of the dominant carrier's (AT&T's) share of it. The staff devised a measure, telecommunications value added, defined as a telecommunications utility's revenue minus its cost of resold telecommunications services (purchases from other IXCs of telecommunications services for resale). This measure eliminates the double-counting of revenue in a market in which the value of resold services is significant.

Value added is a concept used by economists to measure economic activity. It is the basis of the calculation of gross national product (GNP). The value added by a firm is its revenue from selling a product minus the amount paid for goods and services purchased from other firms. Value added avoids the double-counting that occurs when one adds up the revenue of all firms in a market. For example, if one company manufactures a guitar, which it sells for $100 to a retail music store, which sells the guitar to a musician for $150, the total contribution to GNP is $150, not $250. The manufacturer's value added is $100; the retailer's is $50.

Telecommunications value added by AT&T and other IXCs for 1991 and 1992 is shown in Exhibit 7.

A service-by-service measure of market share based on telecommunications value added may be misleading. Some telecommunications services are purchased in bulk and resold as a different service. For example, a reseller may purchase WATS from a facilities-based carrier and resell the service as MTS. When this happens, the reseller's share of the MTS market will be overstated (since the reseller's revenue is counted here), and its share of the WATS market (where its costs of resold services are counted) will be understated.

## Gross Revenue of Facilities-Based Carriers

Another way to avoid the double-counting problem is to analyze only that segment of the market represented by facilities-based carriers. In 1991 the 22 facilities-based carriers accounted for 93.7 percent of the revenue of the IXCs operating in Texas. AT&T's market share compared to other facilities-based carriers is shown at Exhibit 8.

Some economists argue that the most valid indicator of market share is AT&T's revenue compared to that of other facilities-based carriers. This is because, although resellers may increase the choices available to consumers, they are inherently dependent on the facilities-based carriers. This dependence, which results from the fact that resellers are both customers and competitors of the facilities-based carriers, prevents resellers from significantly reducing the market power of their facilities-based suppliers.

## Gross Revenue of All IXCs

Since 1986 the staff has reported quarterly data on market share based on gross revenue. Information on AT&T's share of gross revenue by service market for the period from January 1, 1990 through June 30, 1992 is shown at Exhibit 9.

Gross revenue of all IXCs as a measure of market share is flawed because of the double-counting of revenue discussed above. Market share measured by gross revenue is sensitive to marketing practices that have no real impact on the size of the market or the market power of the dominant carrier. An increase in the activities of switchless resellers and aggregators, for example, may cause the market share of facilities-based carriers to decrease, even if the switchless resellers and aggregators are merely reselling and marketing the services of the facilities-based carriers.

Returning to the example of the guitar, if the guitar were sold first to a wholesaler for $100, then to a retailer for $125, and finally to a musician for $150, total gross revenue of all these parties would be $375. The manufacturer's share of the market would have fallen from 67 percent to 27 percent. If we measure market share based on value added, the manufacturer's share of this value, $100, remains at 67 percent, as it should.

## Minutes of Use

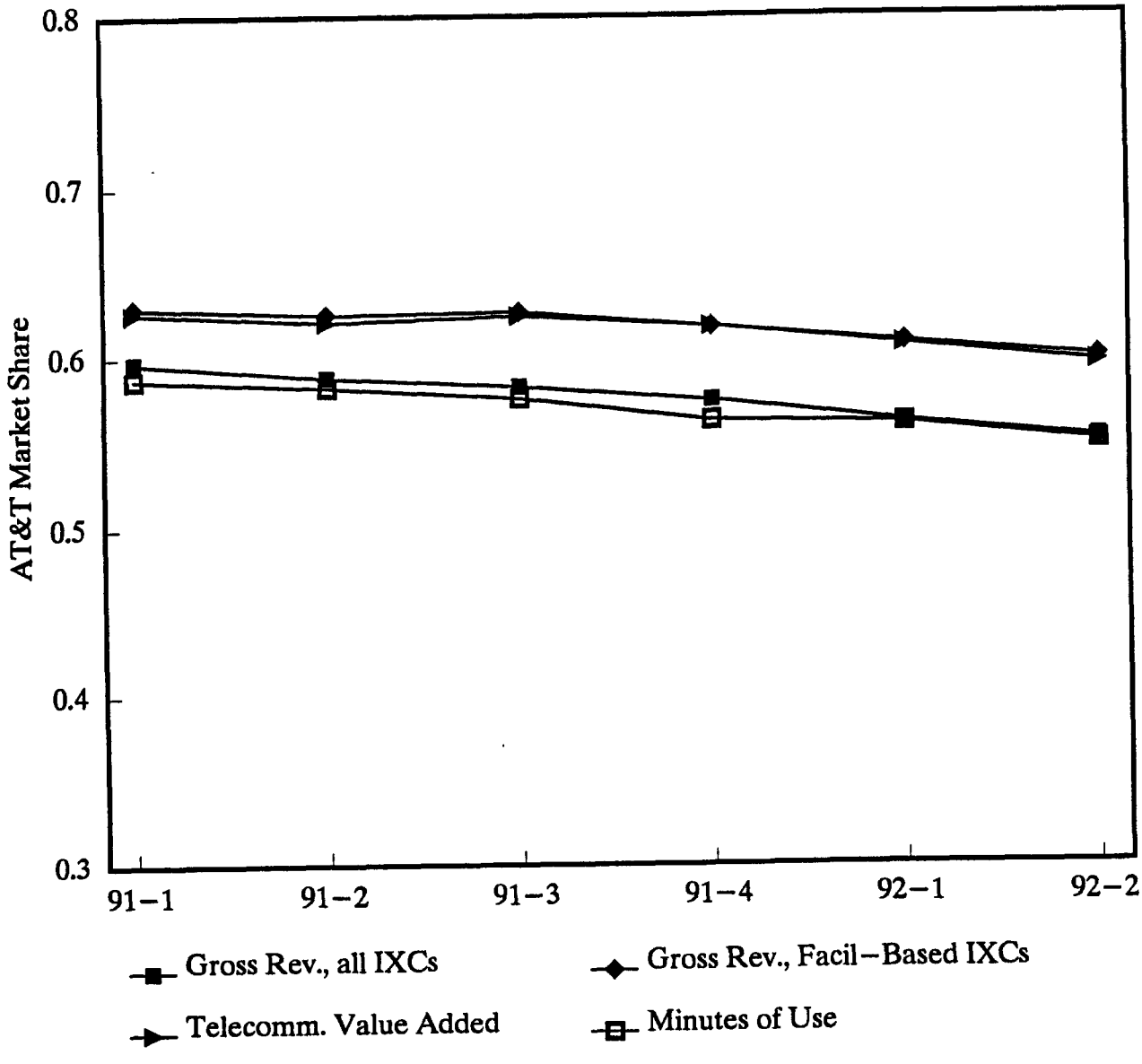
Data on originating access minutes of use are reported in Exhibit 10. Data in this table were reported by the local exchange carriers.

As an indicator of market share, minutes of use has a limitation very much like that of gross revenue: it tends to underrepresent the market share of facilities-based carriers like AT&T in a market that includes resellers. When a reseller purchases access from a LEC for traffic carried on the network of a facilities-based carrier, all the minutes of use are attributed to the reseller, although the underlying facilities-based carrier shares in the revenue from that traffic.

Another limitation to the data on minutes of use is that the staff has data only on minutes of use for which a carrier paid originating access charges. Therefore interexchange traffic that bypasses the LEC is not counted.

The graph on the following page shows AT&T's market share from 1990 to mid-1992 based on four measures: telecommunications value added, gross revenue of facilities-based carriers, gross revenue of all IXCs, and minutes of use. The graph illustrates that, as expected, AT&T's share of telecommunications value added and of the revenue of facilities-based carriers is larger than its share of the gross revenue of all IXCs. Minutes of use and gross revenue of all IXCs produce similar measures of market share, due to the double-counting involved in both measures.

# Texas Intrastate Interexchange Services



## Numbers of Customers

The numbers of customers for each service reported by IXCs are shown in Exhibit 11. Customers are grouped according to customer class. This table was compiled from unaudited responses of IXCs.

## Equal Access

Equal access is access service provided by a LEC that (1) allows any IXC to offer 1+ interexchange service and (2) permits a customer to select a primary IXC (PIC) to carry all long-distance calls initiated by dialing 1+ area code + local number. When a LEC end office is converted to equal access, the LEC sends a ballot to all customers served by that end office. The customer must return that ballot to the LEC, designating which IXC will provide that customer's 1+ interLATA long-distance service. If a customer fails to select a PIC, a carrier is assigned randomly. Any customer may change his PIC at any time, but there may be a fee to do so. As a marketing promotion, often an IXC will reimburse the customer for this fee.

The progress of equal access conversions affects MTS and operator services. Since divestiture, equal access has been available statewide for the provision of WATS, private lines, and 800 service. However, for technical reasons, 800 service cannot be provided directly by an OCC in all end offices.

As of December 1992, the percentages of end offices converted to equal access were 79.4 percent for SWB, 58.8 percent for GTE Southwest, and 59.5 percent for the state as a whole. Of all access lines in Texas, 92.5 percent have equal access. Three years ago, this figure was 84 percent.

Seventeen Texas LECs reported receiving a total of 22 *bona fide* requests from OCCs for equal access for end offices that do not yet have equal access.

Equal access end offices are not spread evenly across the state. They are concentrated in urban, suburban, or incorporated areas. However, even when a city has equal access there may be some end offices in the city that have not been converted.

## Operator Services

Operator services include the handling of collect calls, person-to-person calls, calls charged to a calling card, and calls billed to a third number. OSPs are carriers that provide operator services using either live or automated operator functions. Many IXCs offer operator services in addition to other telecommunications services and hence

are OSPs, even though they are more commonly referred to as IXCs. Those IXCs that limit their services to operator-assisted calls only are also OSPs, and are commonly referred to as OSPs rather than IXCs. Such OSPs typically market their services to pay telephone providers, hotels, motels, and hospitals.

Callers who dial 0- (the digit "0" and no other digits) are usually connected with the LEC operator. Because LECs do not handle interLATA calls, callers that need to place an interLATA call have typically been transferred by the LECs to AT&T for call handling. In 1991, SWB initiated a new service called 0- Transfer Service (Docket No. 9760). This service allows callers who reach the SWB operator to be transferred to their OSP of choice if that OSP subscribes to the service. This service provides a new opportunity for OSPs other than AT&T to handle interLATA calls that had previously been handled by AT&T only. GTE recently filed an application, Docket No. 11578, with the Commission to offer 0-Transfer Service.

At public telephones callers are connected with the presubscribed carrier chosen by the premises owner, unless they dial an access code. The Commission's operator services rule requires most public-use telephones to be configured so that end users can access OSPs other than the OSP chosen by the premises owner. Generally, callers may access another OSP by dialing 10XXX, 950-XXXX, or 1-800-NXX-XXXX at the beginning of the call. Callers are becoming increasingly aware of the availability of access codes and the use of these codes to access their preferred OSP.

## Unauthorized Primary Interexchange Carrier (PIC) Selection (Slamming)

The growth of equal access encouraged a competitive environment in which aggressive and unscrupulous marketing practices began to arise. Such a practice is "slamming," the unauthorized change of a customer's PIC.

The FCC has adopted new rules, IXCs must follow in soliciting new long-distance customers. These new rules took effect April 7, 1992. The FCC order requires an IXC to verify a PIC change order in one of the following four ways:

1) obtain the customer's written authorization;
2) obtain electronic authorization via an automated 800 number;
3) obtain the customer's oral authorization verified by an independent third party; or
4) send an information package, including a prepaid, returnable postcard, within three days of the customer's request, and wait 14 days before submitting the customer's order to the LEC.

# V. IMPACT OF COMPETITION ON RURAL AREAS AND UNIVERSAL SERVICE

Each of Texas' 61 LECs serves rural areas of the state. Some LECs' service territories are more predominantly rural, however. Exhibit 12 shows the average population of the five largest towns in the service territory of each LEC that responded to the LEC Data Report.

The Commission staff asked Texas' LECs to describe and quantify the impact of competition on specific services, on rural areas, and on universal service. The following discussion is based on information provided by the LECs.

## IMPACT ON RURAL AREAS

When asked by the Commission to describe the effects of competition in rural areas, roughly a quarter of Texas LECs said any impact was negligible or difficult to assess. However, the majority of LECs cited one or more of the following specific types of effects: (1) increased options for consumers, (2) consumer dissatisfaction, and (3) a loss of revenue because of services offered by competitors. This last, the most common type of response, usually dealt with one or more of the following competitive threats:

- providers of CPE, including key systems and PBX equipment;
- carriage of intraLATA long-distance traffic by IXCs;
- cellular carriers;
- providers of private pay telephone service; and
- bypass of the LEC's network by means of private line circuits.

Some LECs stated that although competition from such sources had not yet seriously affected LEC revenue, it could do so in the future.

### Increased Options for Consumers

A number of LECs said that competition has brought more options to rural customers, often at lower cost. The sale and maintenance of CPE and inside wiring were usually mentioned as examples. Cellular services and intraLATA long-distance calling using IXCs, which typically charge lower rates than LECs for such calling, were also cited. Additionally, the requirement of statewide average pricing was mentioned as benefitting rural customers, as was the accelerated deployment of new

technology and the associated new service capabilities. The conversion to digital switching is a prime example of such deployment.

## Customer Dissatisfaction

In contrast, a number of LECs asserted that competition has tended to confuse rural customers and create problems for LECs. One LEC commented that rural customers see advertising for various new products, but do not find such products readily available; similarly, another LEC observed that competition had helped rural customers far less than urban customers. Some LECs reported customer complaints that CPE vendors often provide unreliable service or leave the area. Probably the most commonly cited source of dissatisfaction, however, was the high rates often charged by the OSPs selected as primary carriers by private pay telephone providers. According to some LECs, many customers do not distinguish between these telephones and a LEC's public telephones, and lodge frequent complaints with LECs about high OSP prices. LECs reported that handling these complaints can be burdensome.

## Loss of LEC Revenue

The negative aspect on LECs of the expanded consumer options is the loss of revenue to competitors. In this connection many LECs cited competition from providers (often chain stores) of CPE, e.g. key systems, PBX systems, and inside wiring. One LEC observed that such competition, along with FCC and Commission requirements to allocate substantial overhead costs to competitive services, can lead a LEC to abandon its own provision of CPE and inside wiring.

A number of LECs cited the use of IXCs to carry intraLATA long-distance calls as a cause of revenue loss. Such calling is easier in equal access areas, but LEC revenue loss per call is often greater in non-equal access areas, as the LEC charges IXCs other than AT&T non-premium access rates for such calls. Moreover, some businesses in these areas buy automatic dialers to reduce the extra time required to access an IXC.

Many LECs cited cellular carriers as an increasing threat. A few LECs offer an older form of mobile radio service, IMTS, which competes directly with cellular service. (For that matter, some LECs cited IMTS itself, offered by a neighboring LEC, as a threat.) More often, LECs said that cellular service may be used as a substitute for toll and/or local service. In fact, a few LECs reported that some occasional (weekend/seasonal) residents in rural areas have replaced their local LEC service with cellular service.

A smaller but still substantial number of LECs cited competition from providers of private pay telephone service. Some LECs noted that the access revenue received from such providers did not fully offset the loss in toll revenue. A few LECs voiced concern that some private pay telephone providers had been highly successful in contracting with premises owners for placement of their telephones. The LECs allege that as a result, they were being forced to remove their own public telephones from the most profitable locations. In the view of the LECs, the private pay telephone providers have been successful in marketing their services largely because they offer substantial commissions to premises owners.

The other major threat cited by a number of LECs is the bypass of a LEC's network by means of private line circuits. Such bypass may connect a business or governmental entity directly with an IXC, or it may connect different branches of the same business or governmental entity; the former type appears to be of greater concern to LECs in rural areas. In the case of service bypass to an IXC, involving installation of the circuit by the LEC, the LEC's loss of toll and switched access revenue is partially offset by additional special access revenue. However, with facility bypass to an IXC, involving installation of the circuit by another provider, the LEC receives no access revenue at all for the affected portion of a call.

Some LECs reported examples of facility or service bypass, and a few provided estimates of the associated revenue losses. Some others expressed the fear that such bypass would become a greater threat in the future.

## IMPACT ON UNIVERSAL SERVICE

When asked by the Commission whether competition had affected universal service, only a handful of LECs stated that universal service had already been significantly impaired. Among the large majority of LECs saying there had not yet been such an effect, however, over half expressed fears that competition in the future could have a significant adverse impact on universal service.

A number of other LECs expressed uncertainty or said any effects on universal service were not quantifiable. Some others observed that if universal service involves the availability of a variety of services, rather than just low basic local telephone rates, competition to this point had actually promoted universal service. Still, most of the latter LECs expressed concern about future competitive threats to universal service.

Those LECs that said universal service had already been harmed cited competition from one or more of the following sources:

- providers of private pay telephone service,
- providers of CPE (including key and PBX systems),
- providers of cellular service,
- "cream-skimming" by competitors, who induce high-volume users to migrate to private networks, thus reducing contribution to overhead and other common expenses, and
- general competitive pressure to reduce rates.

About one-third of responding LECs simply answered negatively to the question or left it blank. As noted earlier, though, a slightly larger number said that although competition had not yet impaired universal service, it had real potential to do so in the future. Some of the threats specified, such as cellular service and private-line bypass of the LEC's switched network, were noted above. Two additional dangers some of the LECs in this group cited were (1) changes in pooling arrangements and (2) the definition of local exchange service in the Commission's new Substantive Rule 23.61. Only a few LECs raised the concern that the phase-out of the ICAC fund or possible changes in the intraLATA toll pool or the federal universal service fund could negatively affect universal service. A far larger number, though, warned that the new definition of local exchange service, with its exclusion from the definition of a number of services provided by LECs, could make cream-skimming by competitors easier, leading to decreased contributions from a LEC's private line and specialized services. One LEC voiced a related concern over the possible outcomes of (1) pending issues at the federal level involving interconnection/collocation and access rate restructuring and (2) two pending Commission cases, Docket Nos. 9618 and 9640, dealing with CAPs.

Another LEC observed that there tends to be a conflict between residual rate-making, used to keep basic local telephone rates low, and the need to drive down prices of competitive services toward their costs. This LEC argued that unless the Commission reverses its policy and allows "non-competitive discretionary" services to be priced on a willingness-to-pay basis, basic local rates thus will eventually need to be increased.

This same LEC also suggested that intrastate switched access rates in Texas are still high enough to encourage uneconomic bypass, both of the service and facilities type.

# VI. LEGISLATIVE RECOMMENDATIONS

In general, the Commission feels that PURA provides a solid and appropriate framework for regulation of telecommunications utilities in Texas. The Commission's mandate in PURA is strong enough to permit effective regulation of the market and flexible enough to permit the Commission to respond to changes in the industry. However, a recent challenge to a Commission rule suggests that a minor modification to PURA, Section 3(c)(2)(B) would be appropriate, for the reasons set forth below.

There is little dispute that nationwide the level of competition in the local telecommunications market is changing rapidly. To "protect the public interest and to provide equal opportunity to all telecommunications utilities in a competitive marketplace" the Commission must institute new rules and policies, as required by PURA, Section 18(a). The Commission contends that the directive of PURA, Section 18(a) to provide equal opportunity to all telecommunications utilities does not require that the Commission treat all carriers equally. Indeed, equal opportunity among carriers cannot be provided if LECs, which enjoy significant competitive advantages, are regulated in the same manner as are new market entrants that provide services other than local exchange service. In other words, asymmetric market conditions warrant asymmetric regulatory policies. Acting pursuant to the regulatory policies established in PURA, the Commission regulates LECs as dominant carriers subject to the regulatory flexibility allowed pursuant to PURA, Section 18(e); new market entrants providing services other than local exchange service are regulated as nondominant carriers.

The Commission's regulatory treatment of differently-situated carriers is consistent with the mandates currently set forth in PURA. PURA, Section 18(g) directs the Commission to ensure both that competitors are protected from the LEC exercise of anticompetitive, predatory, or discriminatory practices and that ratepayers are protected from LEC cross-subsidization of competitive services by non-competitive services. More generally, PURA, Section 47 prohibits public utilities from discriminating "against any person or corporation that sells or leases equipment or performs services in competition with the public utility, nor may any public utility engage in any other practice that tends to restrict or impair such competition."

The LECs argue that the regulatory scheme hobbles them by imposing burdens not shared by their competitors, such as price restrictions, service quality obligations, carrier-of-last-resort obligations, and extensive reporting requirements. The competitors argue, on the other hand, that LECs possess enormous market power and significant advantages, given their pervasive physical networks and the ownership of 100 years' worth of infrastructure paid for by captive customers.

The Commission believes that local exchange telecommunications competition is in its infancy. New market entrants face significant entry barriers, such as obtaining rights-of-way, establishing a customer base and name recognition, and raising capital to allow for growth and operating shortfalls. The LECs' large market share and continued provision of monopoly services provide an overwhelming opportunity to engage in strategic or anti-competitive behavior, including predatory pricing and cross-subsidization of competitive services with revenue from monopoly services. In this environment, the regulatory scheme set forth in PURA is appropriate.

In 1987 the Legislature amended PURA to address, among other things, the issue of competition in the local telecommunications market. In particular, Senate Bill 444 amended PURA, Section 18(e)-(k). The Bill Analysis that accompanied the report of the House Committee on State Affairs describes the purpose of the Senate Bill 444 amendments as "regulat[ing] local exchange companies with greater flexibilities in the areas of competitive service."

In Section 18(e) of PURA the Legislature created a regulatory mechanism that allows LECs to respond to significant competitive challenges they may face. In accordance with PURA, Section 18(e)(1), the Commission has promulgated Substantive Rule 23.27, which establishes "rules and . . . procedures applicable to local exchange companies for determining the level of competition in specific telecommunications markets and submarkets and providing appropriate regulatory treatment to allow local exchange companies to respond to significant competitive challenges." (For a more detailed discussion of this rule, see page 12.) Although the LECs' claim that Substantive Rule 23.27 is burdensome and onerous, the rule merely reflects the legislative directives contained in PURA, Section 18(e). The rule's requirement of an evidentiary hearing, for example, derives from PURA, Section 18(e)(2), which expressly provides, "In determining the level of competition in a specific market or submarket, the commission shall hold an evidentiary hearing . . . ."

The Commission believes that PURA, Section 18 establishes the appropriate mechanism for assessing the level of competition in local telecommunications markets and granting LECs suitable relief in the form of pricing flexibility. In the context of an evidentiary hearing, a LEC may demonstrate that it experiences significant competitive challenges in a particular local telecommunications market. Upon such a showing, the Commission may grant appropriate regulatory relief, including banded rates, customer-specific contracts, and even detariffing.

As discussed on page 13, only three applications for pricing flexibility have been filed pursuant to Substantive Rule 23.27. It may be that the nascent competition that currently exists in many of the local telecommunications markets currently fails to warrant regulatory flexibility. Alternatively, it may be that LECs have failed to take

advantage of the avenue provided by PURA, Section 18 and the Commission's Substantive Rule 23.27. Neither possibility renders PURA's overall regulatory scheme unreasonable.

In the process of redefining local exchange service (see page 9), the Commission expressly reviewed the regulatory scheme established in PURA. The Commission concluded that LECs should continue to be regulated as dominant carriers and that new market entrants providing services other than local exchange service should continue to be regulated as nondominant carriers. On December 2, 1992, SWB filed in District Court a challenge to the Commission's endorsement of this regulatory scheme.

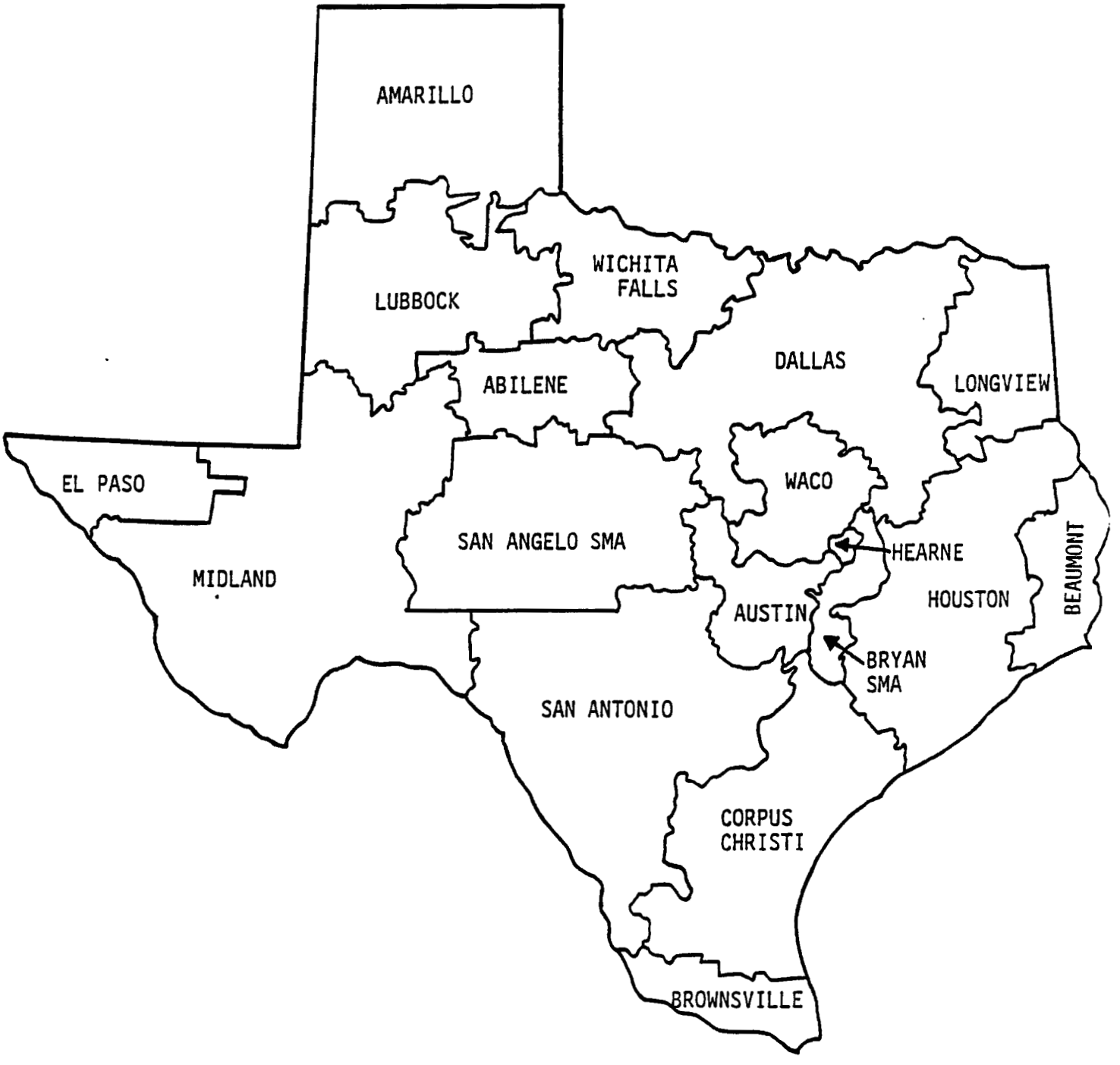
SWB's challenge arises from an alternative interpretation of PURA, Section 3(c)(2)(B), which defines a dominant carrier. According to clause (ii) of subsection (c)(2)(B), a dominant carrier includes "any provider of local exchange telephone service within a certificated exchange area as to such service." SWB argues that the phrase "as to such service" renders a LEC a dominant carrier only with respect to its provision of local exchange services. In other words, according to SWB the Commission's full regulatory authority extends only to the rates and services offered by a LEC for its local exchange service; all other rates and services offered by the LEC are subject only to minimal regulation absent a determination of dominance under PURA, Section 3(c)(2)(B)(i).

The Commission believes that SWB's interpretation of PURA, Section 3(c)(2)(B)(ii) is inconsistent with the provisions of PURA as a whole and is not required by the plain language of the clause. Under the Commission's interpretation of clause (ii), the dominance designation attaches to the provider and, therefore, applies to all services of that provider. In other words, any entity providing local exchange service within any exchange area that has been certificated with respect to the provision of local exchange service is a dominant carrier. Such an interpretation harmonizes clause (ii) with PURA as a whole, including those provisions of PURA, Section 18 that prohibit cross-subsidization and anticompetitive practices.

While the Commission supports the regulatory scheme found in PURA, SWB's challenge introduces some ambiguity in PURA, Section 3(c)(2)(B). The Commission therefore recommends that the legislature remove the ambiguity by clarifying the definition of dominant carrier by deletion of the phrase "within a certificated exchange area as to such service" from PURA, Section 3(c)(2)(B)(ii). Such an amendment would simply reaffirm the legislative commitment to the existing regulatory scheme, which provides appropriate regulatory treatment for all competitors in the local telecommunications market.

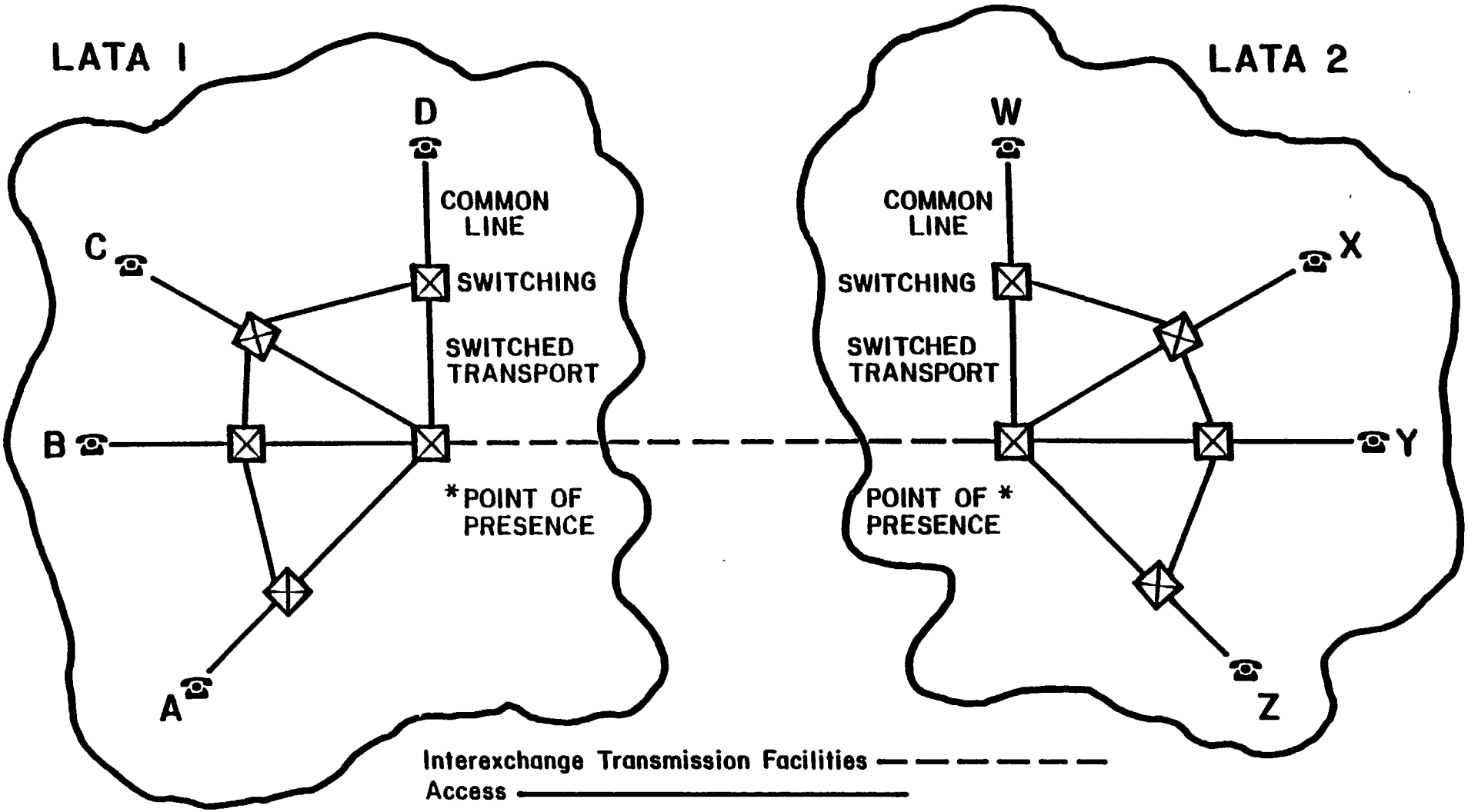
Exhibit 1

LATAs and SMAs



# Exhibit 2

# SWITCHED PUBLIC NETWORK



# SPECIAL ACCESS

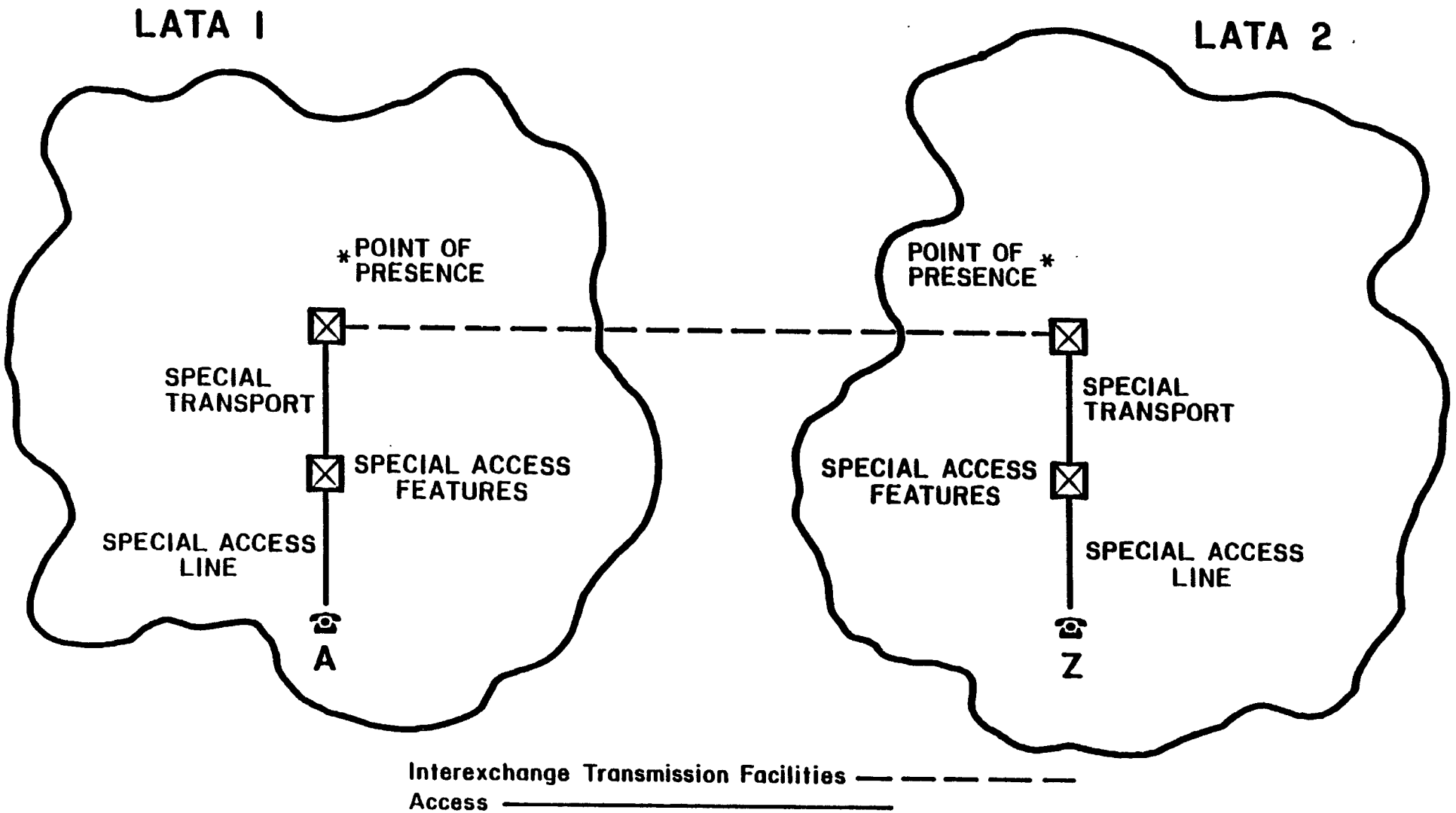
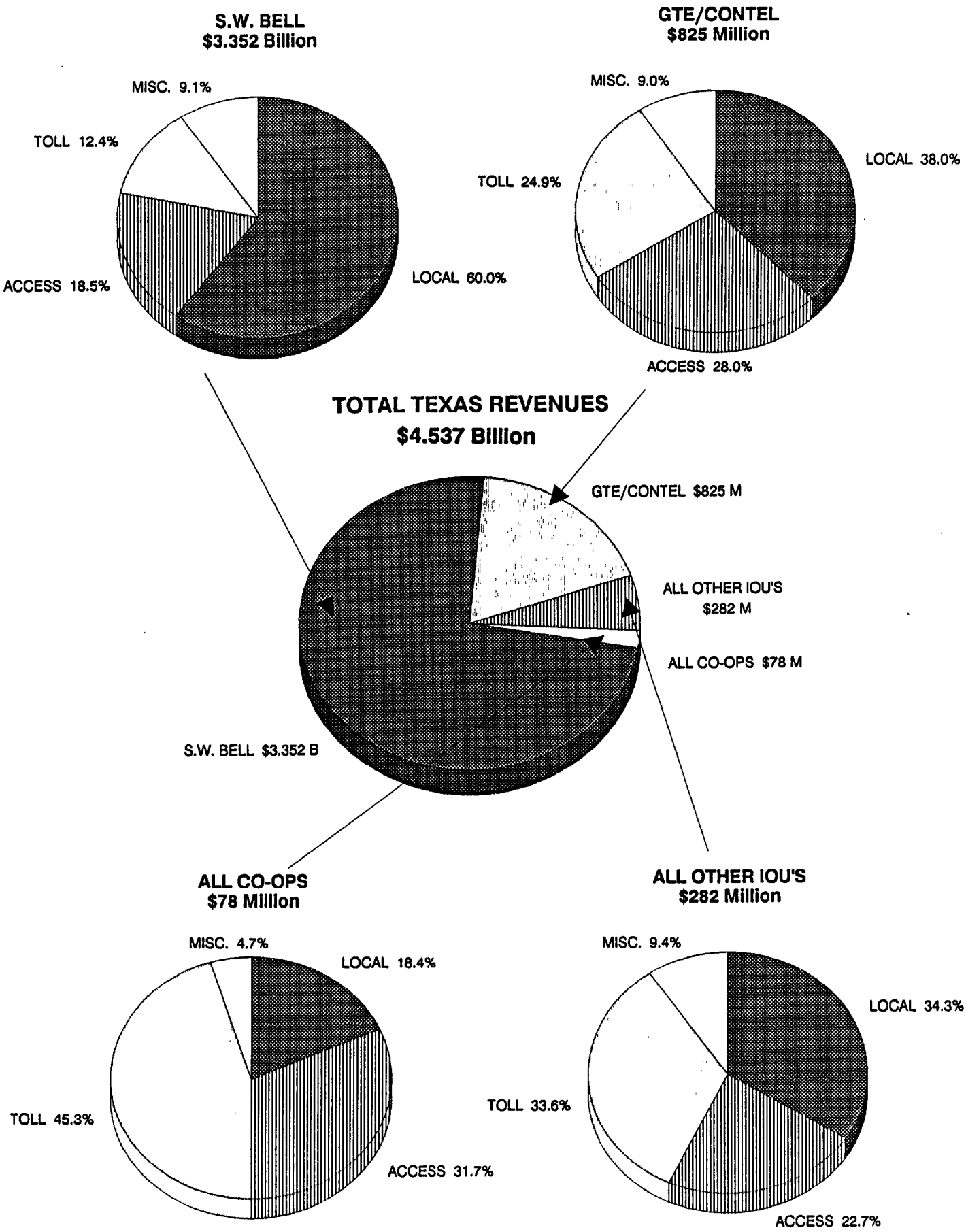


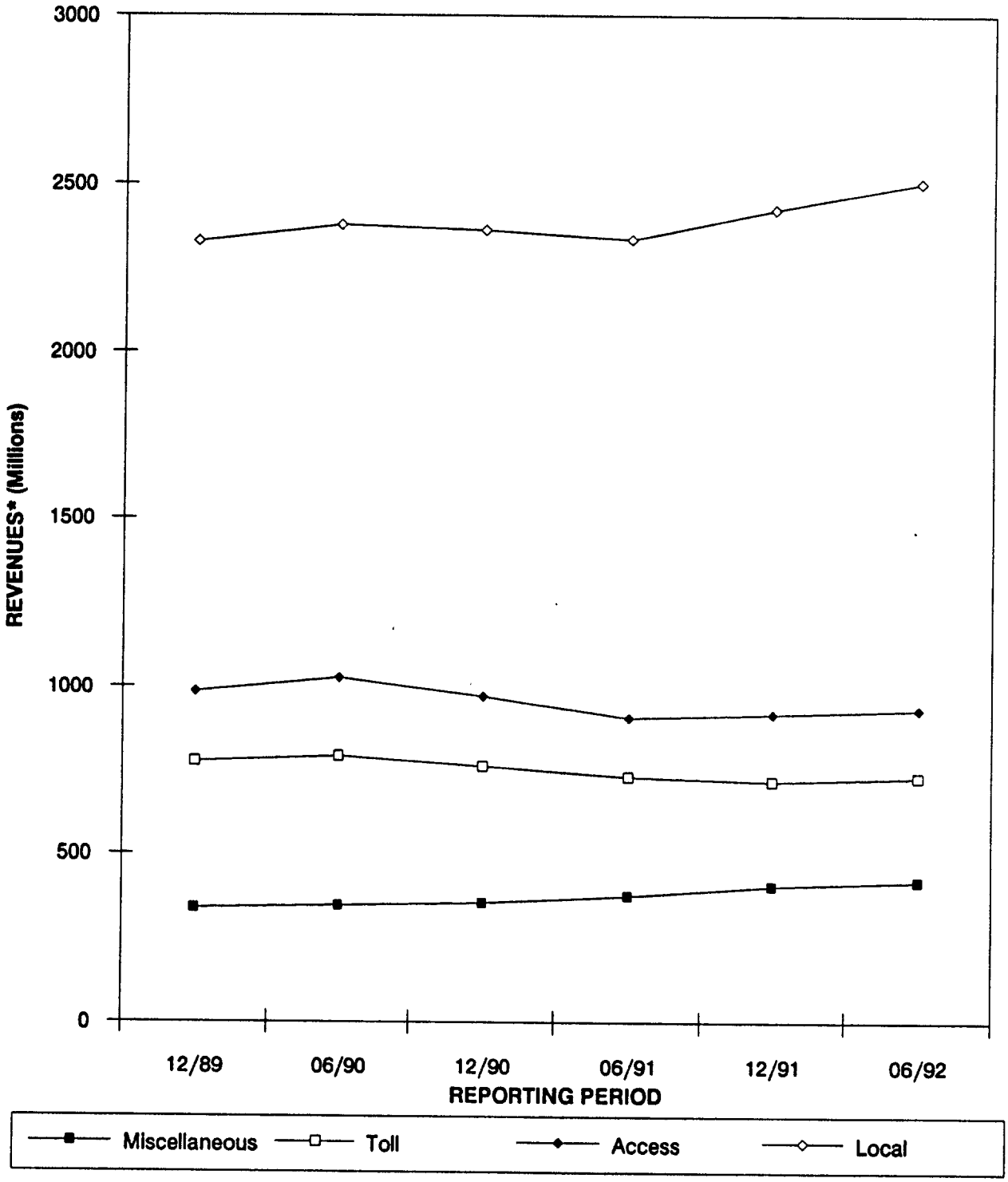
Exhibit 3

# 1991 LEC REVENUES




* Information From Earnings Monitoring Report

# Revenue Trends For LECs (IOUs only)




*Information From Earnings Monitoring Reports

Exhibit 4

# EQUAL ACCESS DATA

## Texas Local Exchange Companies

**As of December 31, 1992**

| Company | END OFFICES | | | ACCESS LINES | | |
|---|---|---|---|---|---|---|
| | Total | Equal Access | | Total | Equal Access | |
| Alenco Communications, Inc. | 4 | 0 | 0.0% | 481 | 0 | 0.0% |
| ALLTEL Texas, Inc. | 5 | 0 | 0.0% | 3,221 | 0 | 0.0% |
| Big Bend Telephone Company of Texas | 14 | 0 | 0.0% | 2,960 | 0 | 0.0% |
| Blossom Telephone Company | 1 | 0 | 0.0% | 1,143 | 0 | 0.0% |
| Brazoria Telephone Company | 2 | 0 | 0.0% | 4,979 | 0 | 0.0% |
| Brazos Telephone Cooperative, Inc. | 5 | 0 | 0.0% | 1,048 | 0 | 0.0% |
| Cameron Telephone Company | 2 | 0 | 0.0% | 994 | 0 | 0.0% |
| Cap Rock Telephone Company, Inc. | 10 | 10 | 100.0% | 2,325 | 2,325 | 100.0% |
| Central Telephone Company of Texas | 48 | 42 | 87.5% | 136,539 | 132,179 | 96.8% |
| Central Texas Telephone Cooperative, Inc. | 15 | 15 | 100.0% | 3,603 | 3,603 | 100.0% |
| Coleman County Telephone Cooperative, Inc. | 6 | 0 | 0.0% | 1,774 | 0 | 0.0% |
| Colorado Valley Telephone Cooperative, Inc. | 6 | 0 | 0.0% | 5,098 | 0 | 0.0% |
| Comanche County Telephone Company, Inc. | 8 | 0 | 0.0% | 4,908 | 0 | 0.0% |
| Community Telephone Company, Inc. | 6 | 6 | 100.0% | 1,478 | 1,478 | 100.0% |
| Continental Telephone Company of Texas | 182 | 93 | 51.1% | 172,120 | 126,072 | 73.2% |
| Cumby Telephone Cooperative, Inc. | 1 | 0 | 0.0% | 593 | 0 | 0.0% |
| Dell Telephone Cooperative, Inc. | 4 | 0 | 0.0% | 503 | 0 | 0.0% |
| E.N.M.R. Telephone Cooperative, Inc. | 2 | 0 | 0.0% | 747 | 0 | 0.0% |
| Eastex Telephone Cooperative, Inc. | 21 | 0 | 0.0% | 21,765 | 0 | 0.0% |
| Electra Telephone Company | 1 | 0 | 0.0% | 1,685 | 0 | 0.0% |
| Etex Telephone Cooperative, Inc. | 7 | 0 | 0.0% | 9,540 | 0 | 0.0% |
| Five Area Telephone Cooperative, Inc. | 6 | 0 | 0.0% | 1,420 | 0 | 0.0% |
| Fort Bend Telephone Company | 8 | 8 | 100.0% | 19,609 | 19,609 | 100.0% |
| Ganado Telephone Company, Inc. | 1 | 1 | 100.0% | 1,307 | 1,307 | 100.0% |
| General Telephone Company of the Southwest | 320 | 188 | 58.8% | 1,240,192 | 1,083,175 | 87.3% |
| Guadalupe Valley Telephone Cooperative, Inc. | 14 | 14 | 100.0% | 17,000 | 17,000 | 100.0% |
| Hill Country Telephone Cooperative, Inc. | 15 | 8 | 53.3% | 9,860 | 8,030 | 81.4% |
| Industry Telephone Company | 3 | 0 | 0.0% | 1,659 | 0 | 0.0% |
| Kerrville Telephone Company, Inc. | 4 | 4 | 100.0% | 15,881 | 15,881 | 100.0% |
| La Ward Telephone Exchange, Inc. | 3 | 3 | 100.0% | 920 | 920 | 100.0% |
| Lake Dallas Telephone Company, Inc. | 1 | 0 | 0.0% | 4,780 | 0 | 0.0% |
| Lake Livingston Telephone Company | 1 | 0 | 0.0% | 1,012 | 0 | 0.0% |
| Lipan Telephone Company | 2 | 0 | 0.0% | 917 | 0 | 0.0% |
| Livingston Telephone Company | 1 | 0 | 0.0% | 4,682 | 0 | 0.0% |
| Lufkin-Conroe Telephone Exchange, Inc. | 16 | 0 | 0.0% | 67,049 | 0 | 0.0% |
| Mid-Plains Rural Telephone Cooperative, Inc. | 9 | 0 | 0.0% | 2,138 | 0 | 0.0% |
| Muenster Telephone Corporation of Texas | 6 | 6 | 100.0% | 2,764 | 2,764 | 100.0% |
| Mustang Telephone Company | 1 | 0 | 0.0% | 2,509 | 0 | 0.0% |
| North Texas Telephone Company, Inc. | 2 | 0 | 0.0% | 732 | 0 | 0.0% |
| Panhandle Telephone Cooperative, Inc. | 1 | 1 | 100.0% | 37 | 37 | 100.0% |
| Peoples Telephone Cooperative, Inc. | 9 | 0 | 0.0% | 7,427 | 0 | 0.0% |
| Poka-Lambro Rural Telephone Cooperative, Inc. | 16 | 16 | 100.0% | 3,469 | 3,469 | 100.0% |
| Riviera Telephone Company, Inc. | 3 | 0 | 0.0% | 846 | 0 | 0.0% |
| San Marcos Telephone Company, Inc. | 1 | 1 | 100.0% | 21,262 | 21,262 | 100.0% |
| Santa Rosa Telephone Cooperative, Inc. | 10 | 0 | 0.0% | 1,496 | 0 | 0.0% |
| South Plains Telephone Cooperative, Inc. | 16 | 0 | 0.0% | 3,796 | 0 | 0.0% |
| Southwest Arkansas Telephone Cooperative, Inc. | 1 | 0 | 0.0% | 425 | 0 | 0.0% |

| Company | END OFFICES Total | Equal Access | | ACCESS LINES Total | Equal Access | |
|---|---|---|---|---|---|---|
| Southwest Texas Telephone Company | 6 | 0 | 0.0% | 2,801 | 0 | 0.0% |
| Southwestern Bell Telephone Company | 567 | 450 | 79.4% | 7,133,941 | 6,909,619 | 96.9% |
| Sugar Land Telephone Company | 13 | 13 | 100.0% | 38,123 | 38,123 | 100.0% |
| Tatum Telephone Exchange | 1 | 0 | 0.0% | 766 | 0 | 0.0% |
| Taylor Telephone Cooperative, Inc. | 14 | 0 | 0.0% | 5,291 | 0 | 0.0% |
| Texas ALLTEL, Inc. | 26 | 0 | 0.0% | 17,218 | 0 | 0.0% |
| United Telephone Company of Texas, Inc. | 60 | 27 | 45.0% | 113,276 | 54,554 | 48.2% |
| Valley Telephone Cooperative, Inc. | 17 | 0 | 0.0% | 4,571 | 0 | 0.0% |
| Wes-Tex Telephone Cooperative, Inc. | 10 | 0 | 0.0% | 3,055 | 0 | 0.0% |
| West Texas Rural Telephone Cooperative, Inc. | 9 | 9 | 100.0% | 1,756 | 1,756 | 100.0% |
| XIT Rural Telephone Cooperative, Inc. | 7 | 7 | 100.0% | 1,057 | 1,057 | 100.0% |
| **TOTALS:** | **1,550** | **922** | **59.5%** | **9,132,548** | **8,444.220** | **92.5%** |

Note: Access line counts are as of December 31, 1991.

Exhibit 5

## NONDOMINANT IXCS FAILING TO FILE NTUDRS BY DECEMBER 31, 1992

ABL Network
A.B. Network
American Automated Telephone, LTD.
American Public Communications, Inc.
American Telenet Systems
Amer-I-Net Services Corporation
Amerishare Communications, Inc.
AP&T Services, Inc.
Austin Bestline
Carrier Services Corp.
COMTEL - TMC
Contel Office Communications, Inc.
Corpus Christi Communications
CPS Operator Services, Inc.
Cytel Corporation
Dial U.S.
Digital Network, Inc.
East Texas Fiber Line, Inc.
Excel Telecommunications, Inc.
Fiberline Network Communications
First Fone of San Marcos
Fone America, Inc.
Global WATS
Highland Communications, Inc.
Lone Star Telecom
Long Distance Operators, Inc.
Metro-Link Telecom, Inc.
MIS Associates, Inc.
National Communications Corporation
National Telecommunications
Net Fone
Northeast Operator Services Corp.
Southland Corporation
Southwest Pay Telephone Systems, Inc.
SpectraNet, Inc.
StarTel Communication, Inc.
Star Tel, Inc. [not STS Telecommunications dba Star Tel]
Star Tel of Lufkin
Tel-Com Long Distance
Telecommunication Services, Inc.
TeleCommunications Link, Inc.
Telecom America
Telefind Corporation
Telegroup, Inc.
Tele-Systems, Inc.
Tel-Save, Inc.
Texustel, Inc.
Universal Technology & Comm. Corp. dba Universal Credit Corp
US WATS, Inc.
Valu-Line of Brazosport
VNI Communications, Inc.
Voxcom, Inc.
Wholesale Communications Network, Inc.

Exhibit 6

Number Of IXCs Other than AT&T
Serving Customers Of Texas LECs
(as of June 30, 1992)

| Company | Number of IXCs Other than AT&T |
|---|---|
| Alenco | 0 |
| Alltel-Texas | 0 |
| Big Bend | 0 |
| Blossom | 0 |
| Border-to-Border | N.A. |
| Brazoria | 4 |
| Brazos | 20 |
| Caddoan | N.A. |
| Cameron | 24 |
| Cap Rock | 14 |
| Centel | 76 |
| Central Texas Co-op | 13 |
| Coleman County Co-op | 23 |
| Colorado Valley Co-op | 0 |
| Comanche County | 0 |
| Community | 0 |
| Contel | N.A. |
| Cumby | 0 |
| Dell | 0 |
| E.N.M.R. | 0 |
| Eastex | 6 |
| Electra | 0 |
| Etex Co-op | 0 |
| Five Area Co-op | 0 |
| Fort Bend | 19 |
| GTE Southwest | 132 |
| Ganado | 41 |
| Guadalupe Valley Co-op | 20 |
| Hill Country Co-op | 108 |
| Industry | 0 |
| Kerrville | 19 |
| LaWard | 32 |
| Lake Dallas | 19 |
| Lake Livingston | N.A. |
| Leaco | N.A. |
| Lipan | 47 |
| Livingston | 0 |
| Lufkin-Conroe | 24 |
| Mid-Plains Co-op | N.A. |
| Muenster | 0 |
| Mustang | 48 |

| | |
|---|---|
| North Texas | 7 |
| Panhandle Co-op | N.A. |
| Peoples Co-op | N.A. |
| Poka-Lambro Co-op | 13 |
| Riviera | 0 |
| San Marcos | 34 |
| Santa Rosa | 0 |
| South Plains | 0 |
| Southwest Arkansas Co-op | 0 |
| Southwest Texas | 72 |
| Southwestern Bell | 260 |
| Sugar Land | 20 |
| Tatum | 0 |
| Taylor Co-op | 0 |
| Texas-Alltel | 0 |
| United | 30 |
| Valley Co-op | 0 |
| Wes-Tex Co-op | 0 |
| West Texas Rural Co-op | 15 |
| XIT Rural Co-op | 35 |

N.A. Data Not Available.

Source: Texas Public Utility Commission
Local Exchange Company Data Report

Exhibit 7

Texas Interexchange Carriers
1991 Telecommunications Value Added by Quarter

| | 91-1 | | 91-2 | | 91-3 | | 91-4 | |
|---|---|---|---|---|---|---|---|---|
| | $ | PERCENT | $ | PERCENT | $ | PERCENT | $ | PERCENT |
| MTS-TYPE (Includes Operator Services) | | | | | | | | |
| AT&T: | 181,707,000 | 65.3% | 180,018,000 | 64.5% | 185,975,000 | 64.4% | 181,616,000 | 63.4% |
| Others: | 96,507,563 | 34.7% | 99,012,479 | 35.5% | 102,915,676 | 35.6% | 104,974,189 | 36.6% |
| Subtotal: | 278,214,563 | 100.0% | 279,030,479 | 100.0% | 288,890,676 | 100.0% | 286,590,189 | 100.0% |
| # Others: | 85 | | 91 | | 98 | | 103 | |
| WATS-TYPE | | | | | | | | |
| AT&T: | 3,705,000 | 27.6% | 3,934,000 | 29.0% | 3,947,000 | 33.2% | 3,903,000 | 45.4% |
| Others: | 9,730,293 | 72.4% | 9,650,929 | 71.0% | 7,930,700 | 66.8% | 4,688,413 | 54.6% |
| Subtotal: | 13,435,293 | 100.0% | 13,584,929 | 100.0% | 11,877,700 | 100.0% | 8,591,413 | 100.0% |
| # Others: | 30 | | 31 | | 31 | | 31 | |
| PRIVATE LINE ** | | | | | | | | |
| AT&T: | 13,238,000 | 58.9% | 11,393,000 | 61.9% | 11,517,000 | 63.6% | 11,476,000 | 61.7% |
| Others: | 9,233,875 | 41.1% | 7,004,626 | 38.1% | 6,582,418 | 36.4% | 7,127,740 | 38.3% |
| Subtotal: | 22,471,875 | 100.0% | 18,397,626 | 100.0% | 18,099,418 | 100.0% | 18,603,740 | 100.0% |
| # Others: | 24 | | 24 | | 24 | | 24 | |
| VIRTUAL PRIVATE LINE | | | | | | | | |
| AT&T: | 8,686,000 | 50.8% | 9,957,000 | 49.5% | 9,216,000 | 44.6% | 8,788,000 | 42.0% |
| Others: | 8,424,166 | 49.2% | 10,165,154 | 50.5% | 11,427,232 | 55.4% | 12,158,277 | 58.0% |
| Subtotal: | 17,110,166 | 100.0% | 20,122,154 | 100.0% | 20,643,232 | 100.0% | 20,946,277 | 100.0% |
| # Others: | 5 | | 5 | | 5 | | 5 | |
| 800 SERVICE | | | | | | | | |
| AT&T: | 28,870,000 | 63.5% | 30,298,000 | 62.8% | 31,330,000 | 64.3% | 29,533,000 | 63.0% |
| Others: | 16,596,353 | 36.5% | 17,944,867 | 37.2% | 17,401,421 | 35.7% | 17,309,300 | 37.0% |
| Subtotal: | 45,466,353 | 100.0% | 48,242,867 | 100.0% | 48,731,421 | 100.0% | 46,842,300 | 100.0% |
| # Others: | 33 | | 36 | | 38 | | 39 | |
| OTHER SERVICES (Includes Local Service, if any) | | | | | | | | |
| AT&T: | 1,763,000 | 52.6% | 2,191,000 | 58.4% | 2,529,000 | 70.5% | 2,381,000 | 74.2% |
| Others: | 1,586,236 | 47.4% | 1,561,202 | 41.6% | 1,057,673 | 29.5% | 829,941 | 25.8% |
| Subtotal: | 3,349,236 | 100.0% | 3,752,202 | 100.0% | 3,586,673 | 100.0% | 3,210,941 | 100.0% |
| # Others: | 10 | | 11 | | 11 | | 11 | |
| TOTAL VALUE ADDED REVENUES | | | | | | | | |
| AT&T: | 237,969,000 | 62.6% | 237,791,000 | 62.1% | 244,514,000 | 62.4% | 237,697,000 | 61.8% |
| Others: | 142,099,988 | 37.4% | 145,382,734 | 37.9% | 147,375,496 | 37.6% | 147,141,211 | 38.2% |
| TOTAL: | 380,068,988 | 100.0% | 383,173,734 | 100.0% | 391,889,496 | 100.0% | 384,838,211 | 100.0% |

Notes:
Value Added is the Texas intrastate revenues minus purchases from other IXCs.
This report includes information submitted as of December 1992.

** Two IXCs are unable to identify intrastate private line revenues. For this reason, private line revenues of 'Others' may be severely understated.

Texas Interexchange Carriers
1992 Telecommunications Value Added by Quarter

| | 92-1 | | 92-2 | | 92-3 | | 92-4 | |
|---|---|---|---|---|---|---|---|---|
| | $ | PERCENT | $ | PERCENT | $ | PERCENT | $ | PERCENT |
| MTS-TYPE (Includes Operator Services) | | | | | | | | |
| AT&T: | 180,240,000 | 62.2% | 184,005,000 | 60.1% | | | | |
| Others: | 109,516,430 | 37.8% | 122,241,882 | 39.9% | | | | |
| Subtotal: | 289,756,430 | 100.0% | 306,246,882 | 100.0% | | | | |
| # Others: | 107 | | 116 | | | | | |
| WATS-TYPE | | | | | | | | |
| AT&T: | 3,891,000 | 48.6% | 4,112,000 | 51.9% | | | | |
| Others: | 4,122,568 | 51.4% | 3,815,841 | 48.1% | | | | |
| Subtotal: | 8,013,568 | 100.0% | 7,927,841 | 100.0% | | | | |
| # Others: | 31 | | 37 | | | | | |
| PRIVATE LINE ** | | | | | | | | |
| AT&T: | 10,994,000 | 58.5% | 12,554,000 | 64.3% | | | | |
| Others: | 7,794,815 | 41.5% | 6,967,765 | 35.7% | | | | |
| Subtotal: | 18,788,815 | 100.0% | 19,521,765 | 100.0% | | | | |
| # Others: | 24 | | 26 | | | | | |
| VIRTUAL PRIVATE LINE | | | | | | | | |
| AT&T: | 9,537,000 | 48.1% | 10,760,000 | 48.1% | | | | |
| Others: | 10,307,633 | 51.9% | 11,601,415 | 51.9% | | | | |
| Subtotal: | 19,844,633 | 100.0% | 22,361,415 | 100.0% | | | | |
| # Others: | 6 | | 6 | | | | | |
| 800 SERVICE | | | | | | | | |
| AT&T: | 28,668,000 | 61.8% | 33,042,000 | 63.4% | | | | |
| Others: | 17,691,604 | 38.2% | 19,038,245 | 36.6% | | | | |
| Subtotal: | 46,359,604 | 100.0% | 52,080,245 | 100.0% | | | | |
| # Others: | 40 | | 45 | | | | | |
| OTHER SERVICES (Includes Local Service, if any) | | | | | | | | |
| AT&T: | 2,186,000 | 38.7% | 2,579,000 | 39.6% | | | | |
| Others: | 3,465,075 | 61.3% | 3,929,974 | 60.4% | | | | |
| Subtotal: | 5,651,075 | 100.0% | 6,508,974 | 100.0% | | | | |
| # Others: | 12 | | 16 | | | | | |
| TOTAL VALUE ADDED REVENUES | | | | | | | | |
| AT&T: | 235,516,000 | 60.6% | 247,052,000 | 59.6% | | | | |
| Others: | 152,945,199 | 39.4% | 167,631,370 | 40.4% | | | | |
| TOTAL: | 388,461,199 | 100.0% | 414,683,370 | 100.0% | | | | |

Notes:
Value Added is the Texas intrastate revenues minus purchases from other IXCs.
This report includes information submitted as of December 1992.

** Two IXCs are unable to identify intrastate private line revenues. For this reason, private line revenues of 'Others' may be severely understated.

Exhibit 8

Facilities-Based Texas Interexchange Carriers
1991 Intrastate Revenues by Quarter

| | 91-1 | | 91-2 | | 91-3 | | 91-4 | |
|---|---|---|---|---|---|---|---|---|
| | $ | PERCENT | $ | PERCENT | $ | PERCENT | $ | PERCENT |
| MTS-TYPE | | | | | | | | |
| AT&T: | 181,707,000 | 68.3% | 180,018,000 | 68.0% | 185,975,000 | 68.1% | 181,616,000 | 66.8% |
| Others: | 84,466,995 | 31.7% | 84,745,322 | 32.0% | 86,956,069 | 31.9% | 90,191,759 | 33.2% |
| Subtotal: | 266,173,995 | 100.0% | 264,763,322 | 100.0% | 272,931,069 | 100.0% | 271,807,759 | 100.0% |
| # Others: | 15 | | 15 | | 16 | | 16 | |
| WATS-TYPE | | | | | | | | |
| AT&T: | 3,705,000 | 16.9% | 3,934,000 | 17.2% | 3,947,000 | 17.9% | 3,903,000 | 19.1% |
| Others: | 18,198,463 | 83.1% | 18,986,717 | 82.8% | 18,076,192 | 82.1% | 16,553,707 | 80.9% |
| Subtotal: | 21,903,463 | 100.0% | 22,920,717 | 100.0% | 22,023,192 | 100.0% | 20,456,707 | 100.0% |
| # Others: | 6 | | 6 | | 6 | | 6 | |
| PRIVATE LINE (Includes Virtual)** (Analog & Digital) | | | | | | | | |
| AT&T: | 21,924,000 | 53.1% | 21,350,000 | 52.8% | 20,733,000 | 50.6% | 20,264,000 | 48.5% |
| Others: | 19,393,039 | 46.9% | 19,049,071 | 47.2% | 20,229,584 | 49.4% | 21,528,439 | 51.5% |
| Subtotal: | 41,317,039 | 100.0% | 40,399,071 | 100.0% | 40,962,584 | 100.0% | 41,792,439 | 100.0% |
| # Others: | 11 | | 11 | | 11 | | 12 | |
| 800 SERVICE | | | | | | | | |
| AT&T: | 28,870,000 | 63.6% | 30,298,000 | 62.8% | 31,330,000 | 64.0% | 29,533,000 | 63.0% |
| Others: | 16,496,907 | 36.4% | 17,975,669 | 37.2% | 17,600,970 | 36.0% | 17,337,116 | 37.0% |
| Subtotal: | 45,366,907 | 100.0% | 48,273,669 | 100.0% | 48,930,970 | 100.0% | 46,870,116 | 100.0% |
| # Others: | 9 | | 9 | | 9 | | 9 | |
| OTHER SERVICES (Includes Local Service, if any) | | | | | | | | |
| AT&T: | 1,763,000 | 51.6% | 2,191,000 | 54.2% | 2,529,000 | 60.4% | 2,381,000 | 59.6% |
| Others: | 1,653,231 | 48.4% | 1,849,786 | 45.8% | 1,658,176 | 39.6% | 1,616,314 | 40.4% |
| Subtotal: | 3,416,231 | 100.0% | 4,040,786 | 100.0% | 4,187,176 | 100.0% | 3,997,314 | 100.0% |
| # Others: | 4 | | 4 | | 4 | | 4 | |
| TOTAL GROSS REVENUES | | | | | | | | |
| AT&T: | 237,969,000 | 62.9% | 237,791,000 | 62.5% | 244,514,000 | 62.9% | 237,697,000 | 61.8% |
| Others: | 140,208,635 | 37.1% | 142,606,565 | 37.5% | 144,520,991 | 37.1% | 147,227,335 | 38.2% |
| TOTAL: | 378,177,635 | 100.0% | 380,397,565 | 100.0% | 389,034,991 | 100.0% | 384,924,335 | 100.0% |

Notes:

This report includes information submitted as of December 1992.

** Two IXCs are unable to identify intrastate private line revenues. For this reason, private line revenues of 'Others' may be severely understated.

Facilities-Based Texas Interexchange Carriers
1992 Intrastate Revenues by Quarter

| | 92-1 | | 92-2 | | 92-3 | | 92-4 | |
|---|---|---|---|---|---|---|---|---|
| | $ | PERCENT | $ | PERCENT | $ | PERCENT | $ | PERCENT |
| MTS-TYPE | | | | | | | | |
| AT&T: | 180,240,000 | 66.1% | 184,005,000 | 64.1% | | | | |
| Others: | 92,445,773 | 33.9% | 103,032,895 | 35.9% | | | | |
| Subtotal: | 272,685,773 | 100.0% | 287,037,895 | 100.0% | | | | |
| # Others: | 17 | | 17 | | | | | |
| WATS-TYPE | | | | | | | | |
| AT&T: | 3,891,000 | 18.9% | 4,112,000 | 19.5% | | | | |
| Others: | 16,725,779 | 81.1% | 16,922,562 | 80.5% | | | | |
| Subtotal: | 20,616,779 | 100.0% | 21,034,562 | 100.0% | | | | |
| # Others: | 7 | | 7 | | | | | |
| PRIVATE LINE (Includes Virtual)** (Analog & Digital) | | | | | | | | |
| AT&T: | 20,531,000 | 50.1% | 23,314,000 | 52.9% | | | | |
| Others: | 20,413,130 | 49.9% | 20,791,346 | 47.1% | | | | |
| Subtotal: | 40,944,130 | 100.0% | 44,105,346 | 100.0% | | | | |
| # Others: | 12 | | 12 | | | | | |
| 800 SERVICE | | | | | | | | |
| AT&T: | 28,668,000 | 61.6% | 33,042,000 | 63.2% | | | | |
| Others: | 17,850,039 | 38.4% | 19,244,483 | 36.8% | | | | |
| Subtotal: | 46,518,039 | 100.0% | 52,286,483 | 100.0% | | | | |
| # Others: | 10 | | 10 | | | | | |
| OTHER SERVICES (Includes Local Service, if any) | | | | | | | | |
| AT&T: | 2,186,000 | 32.1% | 2,579,000 | 31.8% | | | | |
| Others: | 4,621,674 | 67.9% | 5,538,369 | 68.2% | | | | |
| Subtotal: | 6,807,674 | 100.0% | 8,117,369 | 100.0% | | | | |
| # Others: | 4 | | 4 | | | | | |
| TOTAL GROSS REVENUES | | | | | | | | |
| AT&T: | 235,516,000 | 60.8% | 247,052,000 | 59.9% | | | | |
| Others: | 152,056,395 | 39.2% | 165,529,655 | 40.1% | | | | |
| TOTAL: | 387,572,395 | 100.0% | 412,581,655 | 100.0% | | | | |

Notes:

This report includes information submitted as of December 1992.

** Two IXCs are unable to identify intrastate private line revenues. For this reason, private line revenues of 'Others' may be severely understated.

Exhibit 9

Texas Interexchange Carriers
1991 Intrastate Revenues by Quarter

| | 91-1 | | 91-2 | | 91-3 | | 91-4 | |
|---|---|---|---|---|---|---|---|---|
| | $ | PERCENT | $ | PERCENT | $ | PERCENT | $ | PERCENT |
| MTS-TYPE | | | | | | | | |
| AT&T: | 181,707,000 | 64.3% | 180,018,000 | 63.4% | 185,975,000 | 62.6% | 181,616,000 | 61.4% |
| Others: | 100,963,193 | 35.7% | 103,900,150 | 36.6% | 111,043,430 | 37.4% | 114,042,536 | 38.6% |
| Subtotal: | 282,670,193 | 100.0% | 283,918,150 | 100.0% | 297,018,430 | 100.0% | 295,658,536 | 100.0% |
| # Others: | 85 | | 91 | | 98 | | 103 | |
| WATS-TYPE | | | | | | | | |
| AT&T: | 3,705,000 | 16.0% | 3,934,000 | 16.2% | 3,947,000 | 16.8% | 3,903,000 | 17.8% |
| Others: | 19,517,412 | 84.0% | 20,373,118 | 83.8% | 19,539,453 | 83.2% | 18,046,800 | 82.2% |
| Subtotal: | 23,222,412 | 100.0% | 24,307,118 | 100.0% | 23,486,453 | 100.0% | 21,949,800 | 100.0% |
| # Others: | 18 | | 19 | | 19 | | 19 | |
| PRIVATE LINE (Includes Virtual)** (Analog & Digital) | | | | | | | | |
| AT&T: | 21,924,000 | 52.6% | 21,350,000 | 52.3% | 20,733,000 | 50.1% | 20,264,000 | 47.9% |
| Others: | 19,732,384 | 47.4% | 19,433,807 | 47.7% | 20,685,623 | 49.9% | 21,998,608 | 52.1% |
| Subtotal: | 41,656,384 | 100.0% | 40,783,807 | 100.0% | 41,418,623 | 100.0% | 42,262,608 | 100.0% |
| # Others: | 19 | | 20 | | 20 | | 21 | |
| 800 SERVICE | | | | | | | | |
| AT&T: | 28,870,000 | 61.3% | 30,298,000 | 60.5% | 31,330,000 | 61.7% | 29,533,000 | 60.3% |
| Others: | 18,238,792 | 38.7% | 19,815,957 | 39.5% | 19,448,230 | 38.3% | 19,442,115 | 39.7% |
| Subtotal: | 47,108,792 | 100.0% | 50,113,957 | 100.0% | 50,778,230 | 100.0% | 48,975,115 | 100.0% |
| # Others: | 31 | | 33 | | 35 | | 36 | |
| OTHER SERVICES (Includes Local Service, if any) | | | | | | | | |
| AT&T: | 1,763,000 | 45.4% | 2,191,000 | 44.5% | 2,529,000 | 49.8% | 2,381,000 | 48.8% |
| Others: | 2,118,196 | 54.6% | 2,730,154 | 55.5% | 2,545,698 | 50.2% | 2,495,000 | 51.2% |
| Subtotal: | 3,881,196 | 100.0% | 4,921,154 | 100.0% | 5,074,698 | 100.0% | 4,876,000 | 100.0% |
| # Others: | 7 | | 8 | | 8 | | 8 | |
| TOTAL GROSS REVENUES | | | | | | | | |
| AT&T: | 237,969,000 | 59.7% | 237,791,000 | 58.9% | 244,514,000 | 58.5% | 237,697,000 | 57.5% |
| Others: | 160,569,977 | 40.3% | 166,253,186 | 41.1% | 173,262,434 | 41.5% | 176,025,059 | 42.5% |
| TOTAL: | 398,538,977 | 100.0% | 404,044,186 | 100.0% | 417,776,434 | 100.0% | 413,722,059 | 100.0% |

Notes:

This report includes information submitted as of December 1992.

** Two IXCs are unable to identify intrastate private line revenues. For this reason, private line revenues of 'Others' may be severely understated.

Texas Interexchange Carriers
1992 Intrastate Revenues by Quarter

| | 92-1 | | 92-2 | | 92-3 | | 92-4 | |
|---|---|---|---|---|---|---|---|---|
| | $ | PERCENT | $ | PERCENT | $ | PERCENT | $ | PERCENT |
| MTS-TYPE | | | | | | | | |
| AT&T: | 180,240,000 | 60.3% | 184,005,000 | 58.1% | | | | |
| Others: | 118,907,722 | 39.7% | 132,548,373 | 41.9% | | | | |
| Subtotal: | 299,147,722 | 100.0% | 316,553,373 | 100.0% | | | | |
| # Others: | 108 | | 117 | | | | | |
| WATS-TYPE | | | | | | | | |
| AT&T: | 3,891,000 | 17.5% | 4,112,000 | 18.0% | | | | |
| Others: | 18,400,727 | 82.5% | 18,784,172 | 82.0% | | | | |
| Subtotal: | 22,291,727 | 100.0% | 22,896,172 | 100.0% | | | | |
| # Others: | 20 | | 22 | | | | | |
| PRIVATE LINE (Includes Virtual)** (Analog & Digital) | | | | | | | | |
| AT&T: | 20,531,000 | 49.6% | 23,314,000 | 52.2% | | | | |
| Others: | 20,903,311 | 50.4% | 21,307,930 | 47.8% | | | | |
| Subtotal: | 41,434,311 | 100.0% | 44,621,930 | 100.0% | | | | |
| # Others: | 21 | | 22 | | | | | |
| 800 SERVICE | | | | | | | | |
| AT&T: | 28,668,000 | 58.9% | 33,042,000 | 60.4% | | | | |
| Others: | 20,001,011 | 41.1% | 21,644,596 | 39.6% | | | | |
| Subtotal: | 48,669,011 | 100.0% | 54,686,596 | 100.0% | | | | |
| # Others: | 37 | | 41 | | | | | |
| OTHER SERVICES (Includes Local Service, if any) | | | | | | | | |
| AT&T: | 2,186,000 | 28.4% | 2,579,000 | 28.6% | | | | |
| Others: | 5,503,089 | 71.6% | 6,439,183 | 71.4% | | | | |
| Subtotal: | 7,689,089 | 100.0% | 9,018,183 | 100.0% | | | | |
| # Others: | 8 | | 10 | | | | | |
| TOTAL GROSS REVENUES | | | | | | | | |
| AT&T: | 235,516,000 | 56.2% | 247,052,000 | 55.2% | | | | |
| Others: | 183,715,860 | 43.8% | 200,724,254 | 44.8% | | | | |
| TOTAL: | 419,231,860 | 100.0% | 447,776,254 | 100.0% | | | | |

Notes:

This report includes information submitted as of December 1992.

** Two IXCs are unable to identify intrastate private line revenues. For this reason, private line revenues of 'Others' may be severely understated.

**Texas Interexchange Carriers**
**Number of Customers**
**(As of 06/30/92)**

| CLASS OF CUSTOMER | MTS-TYPE | OPERATOR SERVICES | WATS-TYPE | PRIVATE LINE | VIRTUAL PV LINE | 800 SERVICES | OTHER |
|---|---|---|---|---|---|---|---|
| **IXC/OSP** | | | | | | | |
| AT&T: | ** | ** | ** | ** | ** | ** | ** |
| Others: | * | 133 | 207 | 394 | * | * | 0 |
| Subtotal: | * | 133 | 207 | 394 | * | * | 0 |
| # Others: | * | 8 | 7 | 8 | * | * | 0 |
| **Pay Telephone** | | | | | | | |
| AT&T: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Others: | 4,885 | 63,261 | * | 0 | 0 | 0 | * |
| Subtotal: | 4,885 | 63,261 | * | 0 | 0 | 0 | * |
| # Others: | 7 | 24 | * | 0 | 0 | 0 | * |
| **Aggregator** | | | | | | | |
| AT&T: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Others: | 666 | 888 | * | * | * | * | * |
| Subtotal: | 666 | 888 | * | * | * | * | * |
| # Others: | 8 | 19 | * | * | * | * | * |
| **STS Provider** | | | | | | | |
| AT&T: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Others: | 0 | * | * | 0 | 0 | 0 | 0 |
| Subtotal: | 0 | * | * | 0 | 0 | 0 | 0 |
| # Others: | 0 | * | * | 0 | 0 | 0 | 0 |
| **Business** | | | | | | | |
| AT&T: | 550,732 | 0 | 1,861 | 730 | 212 | 41,820 | 17 |
| Others: | 431,117 | 21,319 | 44,045 | 6,009 | * | 65,150 | 17,038 |
| Subtotal: | 981,849 | 21,319 | 45,906 | 6,739 | * | 106,970 | 17,055 |
| # Others: | 74 | 12 | 23 | 20 | * | 47 | 9 |
| **Residential** | | | | | | | |
| AT&T: | 5,070,270 | 0 | 0 | 0 | 0 | 0 | 0 |
| Others: | 1,872,668 | * | * | 0 | 0 | 10,307 | 5,756 |
| Subtotal: | 6,942,938 | * | * | 0 | 0 | 10,307 | 5,756 |
| # Others: | 66 | * | * | 0 | 0 | 16 | 4 |
| **Other** | | | | | | | |
| AT&T: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Others: | * | * | 0 | * | 0 | 0 | 0 |
| Subtotal: | * | * | 0 | * | 0 | 0 | 0 |
| # Others: | * | * | 0 | * | 0 | 0 | 0 |
| **TOTAL CUSTOMERS** | | | | | | | |
| AT&T: | 5,621,002 | 0 | 1,861 | 730 | 212 | 41,820 | 17 |
| Others: | 2,301,271 | 101,261 | 47,426 | 6,882 | 71,369 | 76,013 | 22,818 |
| TOTAL: | 7,922,273 | 101,261 | 49,287 | 7,612 | 71,581 | 117,833 | 22,835 |

Notes:
This report includes information submitted as of December 1992.

An asterisk(*) has been used instead of the actual number to indicate that 3 or fewer carriers reported. This is necessary to ensure that company-specific data are not directly or indirectly revealed, contrary to the assurance of confidentiality made in the Data Report.

** AT&T is not able to report the number of its customers which are IXCs.

Exhibit 10

# TEXAS INTEREXCHANGE CARRIERS MINUTES OF USE (MOU)
# (In Thousands)

## 1986 By Quarter

| | 86-1 | | 86-2 | | 86-3 | | 86-4 | |
|---|---|---|---|---|---|---|---|---|
| | MOU | PERCENT | MOU | PERCENT | MOU | PERCENT | MOU | PERCENT |
| AT&T: | 806,266 | 72.9% | Data Not Available | | Data Not Available | | Data Not Available | |
| Others: | 300,169 | 27.1% | | | | | | |
| TOTAL: | 1,106,435 | 100.0% | | | | | | |

## 1987 By Quarter

| | 87-1 | | 87-2 | | 87-3 | | 87-4 | |
|---|---|---|---|---|---|---|---|---|
| | MOU | PERCENT | MOU | PERCENT | MOU | PERCENT | MOU | PERCENT |
| AT&T: | 734,616 | 66.8% | 793,906 | 67.3% | 829,362 | 67.3% | 778,298 | 66.8% |
| Others: | 365,149 | 33.2% | 386,168 | 32.7% | 402,195 | 32.7% | 385,981 | 33.2% |
| TOTAL: | 1,099,765 | 100.0% | 1,180,074 | 100.0% | 1,231,557 | 100.0% | 1,164,279 | 100.0% |

## 1988 By Quarter

| | 88-1 | | 88-2 | | 88-3 | | 88-4 | |
|---|---|---|---|---|---|---|---|---|
| | MOU | PERCENT | MOU | PERCENT | MOU | PERCENT | MOU | PERCENT |
| AT&T: | 745,998 | 66.8% | 769,271 | 66.5% | 799,226 | 63.4% | 762,232 | 64.3% |
| Others: | 370,304 | 33.2% | 386,979 | 33.5% | 461,837 | 36.6% | 423,790 | 35.7% |
| TOTAL: | 1,116,302 | 100.0% | 1,156,250 | 100.0% | 1,261,063 | 100.0% | 1,186,022 | 100.0% |

## 1989 By Quarter

| | 89-1 | | 89-2 | | 89-3 | | 89-4 | |
|---|---|---|---|---|---|---|---|---|
| | MOU | PERCENT | MOU | PERCENT | MOU | PERCENT | MOU | PERCENT |
| AT&T: | 763,180 | 64.2% | 751,756 | 62.9% | 763,079 | 61.1% | 756,517 | 59.5% |
| Others: | 424,993 | 35.8% | 443,386 | 37.1% | 486,526 | 38.9% | 515,964 | 40.5% |
| TOTAL: | 1,188,173 | 100.0% | 1,195,142 | 100.0% | 1,249,605 | 100.0% | 1,272,481 | 100.0% |

## 1990 By Quarter

| | 90-1 | | 90-2 | | 90-3 | | 90-4 | |
|---|---|---|---|---|---|---|---|---|
| | MOU | PERCENT | MOU | PERCENT | MOU | PERCENT | MOU | PERCENT |
| AT&T: | 741,579 | 58.9% | 757,640 | 57.4% | 801,379 | 59.6% | 800,185 | 59.1% |
| Others: | 518,178 | 41.1% | 562,391 | 42.6% | 543,008 | 40.4% | 554,165 | 40.9% |
| TOTAL: | 1,259,757 | 100.0% | 1,320,031 | 100.0% | 1,344,387 | 100.0% | 1,354,350 | 100.0% |

## 1991 By Quarter

| | 91-1 | | 91-2 | | 91-3 | | 91-4 | |
|---|---|---|---|---|---|---|---|---|
| | MOU | PERCENT | MOU | PERCENT | MOU | PERCENT | MOU | PERCENT |
| AT&T: | 771,925 | 58.7% | 814,754 | 58.3% | 822,693 | 57.6% | 822,595 | 56.3% |
| Others: | 542,076 | 41.3% | 583,659 | 41.7% | 606,147 | 42.4% | 639,224 | 43.7% |
| TOTAL: | 1,314,001 | 100.0% | 1,398,413 | 100.0% | 1,428,840 | 100.0% | 1,461,819 | 100.0% |

## 1992 By Quarter

| | 92-1 | | 92-2 | | 92-3 | | 92-4 | |
|---|---|---|---|---|---|---|---|---|
| | MOU | PERCENT | MOU | PERCENT | MOU | PERCENT | MOU | PERCENT |
| AT&T: | 798,626 | 56.1% | 813,803 | 55.0% | | | | |
| Others: | 625,967 | 43.9% | 666,508 | 45.0% | | | | |
| TOTAL: | 1,424,593 | 100.0% | 1,480,311 | 100.0% | | | | |

Source: Local Exchange Carrier Questionnaire issued by Commission staff to all the Texas local exchange carriers.

Exhibit 11

Exhibit 12

Population Data
Texas Local Exchange Carriers
(as of June 30, 1992)

| Company Name | Average Population of Largest Cities in Service Area |
|---|---|
| Alenco | 167 |
| Alltel-Texas | 2,900 |
| Big Bend | 1,509 |
| Blossom | 793 |
| Border-to-Border | N.A. |
| Brazoria | 2,700 |
| Brazos | 120 |
| Caddoan | N.A. |
| Cameron | 367 |
| Cap Rock | 950 |
| Centel | 34,800 |
| Central Texas Co-op | 320 |
| Coleman County Co-op | 1,300 |
| Colorado Valley Co-op | 133 |
| Comanche County | 1,167 |
| Community | 267 |
| Contel | 9,580 |
| Cumby | N.A. |
| Dell | 500 |
| E.N.M.R. | N.A. |
| Eastex | 820 |
| Electra | 3,200 |
| Etex Co-op | 850 |
| Five Area Co-op | 50 |
| Fort Bend | 3,350 |
| GTE Southwest | 126,220 |
| Ganado | 1,700 |
| Guadalupe Valley Co-op | 2,000 |
| Hill Country Co-op | 882 |
| Industry | 233 |
| Kerrville | 8,900 |
| LaWard | 250 |
| Lake Dallas | 2,750 |
| Lake Livingston | N.A. |
| Leaco | N.A. |
| Lipan | 200 |
| Livingston | 5,012 |
| Lufkin-Conroe | 13,160 |
| Mid-Plains Co-op | 500 |
| Muenster | 491 |
| Mustang | 2,200 |

| | |
|---|---|
| North Texas | 650 |
| Panhandle Co-op | N.A. |
| Peoples Co-op | 413 |
| Poka-Lambro Co-op | 650 |
| Riviera | N.A. |
| San Marcos | 34,580 |
| Santa Rosa | N.A. |
| South Plains | 600 |
| Southwest Arkansas Co-op | 400 |
| Southwest Texas | 560 |
| Southwestern Bell | 910,860 |
| Sugar Land | 10,475 |
| Tatum | 1,300 |
| Taylor Co-op | 480 |
| Texas-Alltel | 1,380 |
| United | 13,040 |
| Valley Co-op | 680 |
| Wes-Tex Co-op | 688 |
| West Texas Rural Co-op | 5,400 |
| XIT Rural Co-op | 500 |

N.A. Data Not Available.

Source: Texas Public Utility Commission
Local Exchange Company Data Report